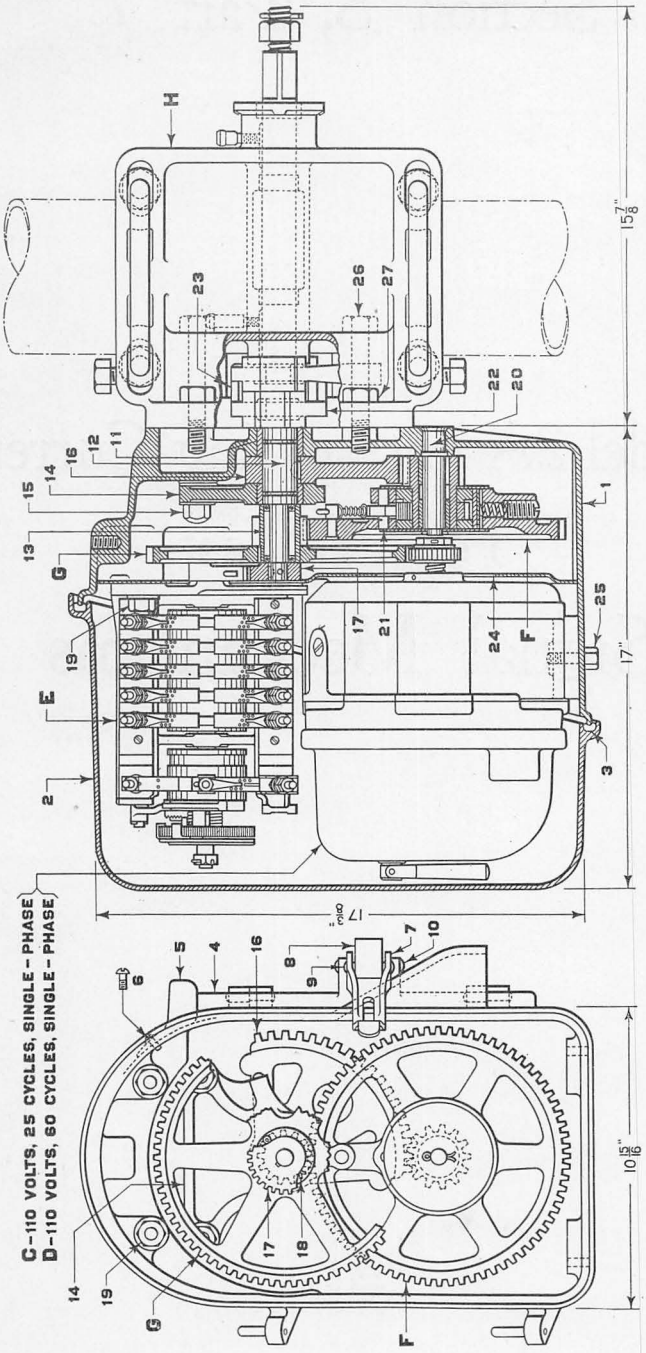
Section S, Part 7

Model 2A Alternating-Current Top-of-Mast Signal Mechanisms

Mod.2A Top of Mast Signal Mech. 7

PLATE SO701



A—with 110 Volt, 25 Cycle, Single-Phase Motor Fig. C
B—with 110 Volt, 60 Cycle, Single-Phase Motor Fig. D

Model 2A, Alternating-Current, Top-of-Mast Signal Mechanism

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Model 2A, Alternating-Current, Top-of-Mast

Signal Mechanism

110 Volts, 25 or 60 Cycles, Single-Phase

Note: Circuit controller is equipped with the contacts necessary for the local control of the signal only. Maximum contact equipment is shown merely as a matter of information.

If pole changing contacts or extra drag contacts are required, same must be specified. State the positions of the signal arm at which each extra contact is to make and break, considering the stop position as 0 degree.

Lock dog for locking the signal arm in the stop position is not furnished with signal mechanism complete and must be specified if desired.

For Semaphore Oil and Oiling diagrams see Part 11 of this Section.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Model 2A, 110 volt, 25 cycle, single-phase, Signal Mechanism, complete as shown, includes clamp bearing. Specify spectacle to be used, size of mast (4″, 5″ or 6″) and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles	29815
A1	as above, except without clamp bearing complete Fig. H	29816
A2	same as Fig. A, except with spectacle, blade and lamp bracket. Specify spectacle and blade required. (Spectacle does not include roundels)	
B	Model 2A, 110 volt, 60 cycle, single-phase Signal Mechanism, complete as shown, includes clamp bearing. Specify spectacle to be used, size of mast (4″, 5″ or 6″) and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles	29815
B1	as above, except without clamp bearing complete Fig. H	29816
B2	same as Fig. B, except with spectacle, blade and lamp bracket. Specify spectacle and blade required. (Spectacle does not include roundels)	
C	Motor Complete, 110 volts, 25 cycle, single-phase. For details and specifications see Plate S0901 Fig. A	43100

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Model 2A, Alternating-Current, Top-of-Mast

Signal Mechanism

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
D	Motor Complete, 110 volts, 60 cycle, single-phase. For details and specifications see Plate S0901 Fig. B	43100
E	Circuit Controller Complete. For details and specifications see Plate S1001	34610
F	Ratchet Gear Complete. For details see Plate S0705 Fig. A	30080
G	Intermediate Gear Complete. For details see Plate S0705 Fig. C	29965
H	Clamp Bearing Complete, includes shaft, driver, spring stop, U bolts, oil cups and bolts for fastening to mechanism. Specify spectacle to be used and size of mast (4″, 5″ or 6″). For details see Plate S1405	
	Note: Lock dog for locking the signal arm in the stop position is not furnished with clamp bearing complete and must be specified if desired.	
1	Case Complete, includes cover, side door, shield for side door, hinge pins, stud for intermediate gear, bushing for main shaft, hasp, strap and all necessary bolts, pins and rivets for holding the same	42339
2	Cover, with gasket	
3	Gasket, for cover Fig. 2	
4	Side door, with gasket, latches and rivets	
4a	Latch, for side door Fig. 4	42018
4b	Rivet, $\frac{3}{16}$″ x $\frac{1}{2}$″ rd. hd., for fastening latch Fig. 4a to top of door Fig. 4	0204
4c	Rivet, $\frac{3}{16}$″ x $\frac{3}{8}$″ rd. hd., for fastening latch Fig. 4a to bottom of door Fig. 4	0203
4d	Gasket, for side door Fig. 4	
5	Shield, for side door Fig. 4	30520
6	Screw, rd. hd., for fastening shield Fig. 5 to case	
7	Hasp tongue	16110
8	Strap, for hasp tongue Fig. 7	30804

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Model 2A, Alternating-Current, Top-of-Mast

Signal Mechanism

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
9	Pin, $\frac{3}{8}''$ x $1\frac{11}{16}''$, for fastening hasp tongue Fig. 7 to strap Fig. 8	7005
10	Pin, $\frac{3}{8}''$ x $2\frac{3}{8}''$, for fastening strap Fig. 8 to case	7567
11	Bushing, for main shaft Fig. 12	29835
12	Main Shaft, with one $\frac{3}{16}''$ x $2''$ cotter pin, and two woodruff keys. For details see Plate S0707 Fig. 7a	
13	Roller Bearing Complete, for intermediate gear Fig. G. For detail see Plate S0705 Fig. 12	29998
14	Bearing Bracket Complete, includes bushing and oiler, for main shaft Fig. 12. For details see Plate S0707 Fig. 2	29833
15	Dowel Screw, for fastening bearing bracket Fig. 14 to case. For detail see Plate S0707 Fig. 11	29849
16	Main Sector. For detail see Plate S0707 Fig. 1	29830
17	Sector, for operating circuit controller. For detail see Plate S0707 Fig. 6	29842
18	Cotter Pin, $\frac{3}{16}''$ x $2''$, for sector Fig. 17	046
19	Stud, $\frac{1}{2}''$ x $2\frac{1}{8}''$, with hex. nut and washer, for fastening circuit controller to case. For details see Plate S0707 Fig. 12a	
20	Stud, for supporting ratchet gear Fig. F. For detail see Plate S0707 Fig. 10	29837
21	Washer, for ratchet gear Fig. F. For detail see Plate S0705 Fig. 11	30089
22	Machine Driver. For detail see Plate S0707 Fig. 3	34627
23	Intermediate Driver. For detail see Plate S0707 Fig. 5	29911
24	Partition, sheet iron. For detail see Plate S0705 Fig. 18	30041
25	Dowel Screw, $\frac{3}{8}''$ x $1\frac{3}{8}''$ hex. hd., for fastening motor to case	30049
26	Tap Bolt, $\frac{5}{8}''$ x $4''$ hex. hd., for fastening mechanism case to bearing	34675
27	Tap Bolt, $\frac{5}{8}''$ x $1\frac{3}{4}''$ hex. hd., for fastening mechanism case to bearing	0664

Memoranda

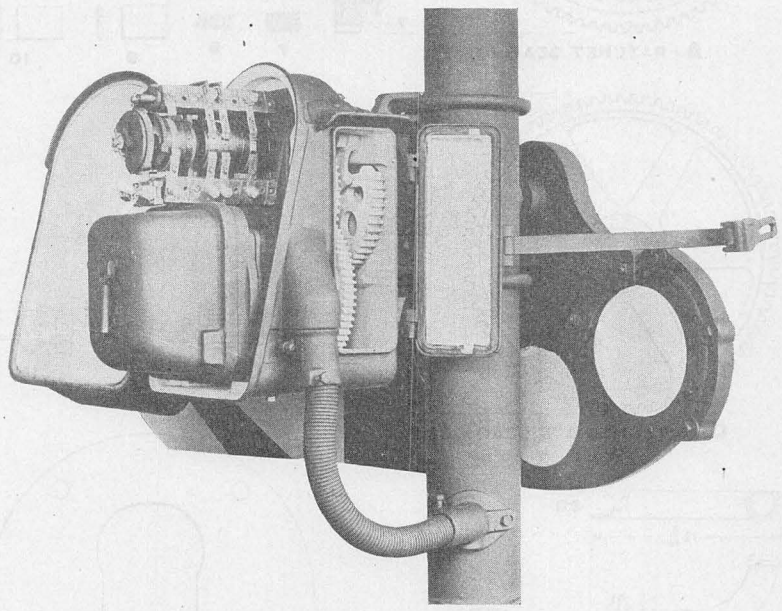
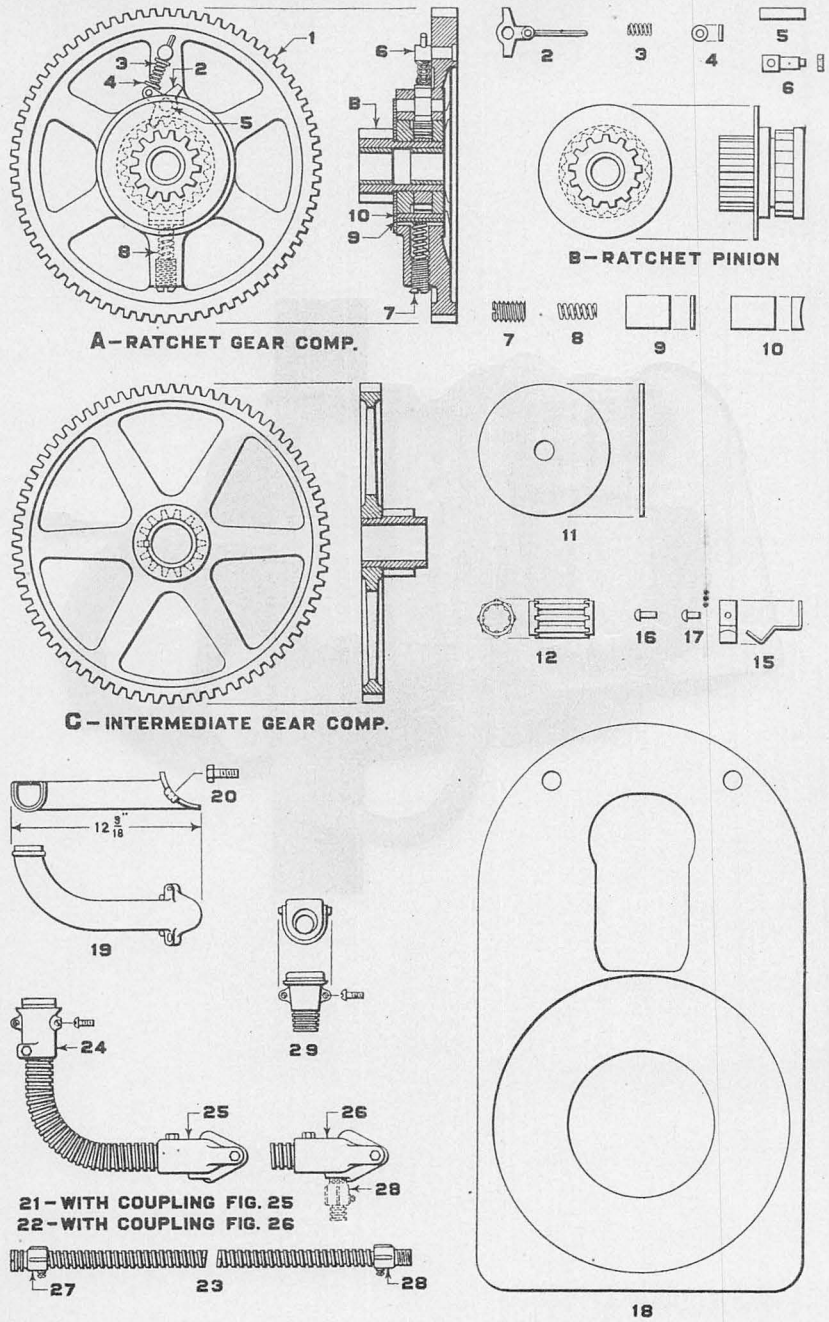


PLATE S0705



Model 2A Signal Mechanism—Details

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Model 2A, Top-of-Mast

Signal Mechanism Details

Note: Details as illustrated on opposite page are used with top of mast signal mechanisms and dwarf signals as shown on Plates S0601, S0603 and S0701.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Ratchet Gear Complete as shown. (1-B, 1-1, 1-2, 1-3, 2-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10)	30080
B	Ratchet Pinion, for ratchet gear Fig. A	30079
C	Intermediate Gear Complete as shown	29965
C1	as above, except with roller bearing Fig. 12	
1	Ratchet Gear only, for Fig. A	30081
2	Pawl Complete as shown, for ratchet gear Fig. A	42438
3	Spring, for ratchet gear Fig. A	30875
4	Washer, $\frac{3}{16}''$, for spring Fig. 3	15394
5	Pin, $\frac{3}{8}''$ x $1\frac{3}{8}''$, for fastening pawl Fig. 2 to gear Fig. 1	30521
6	Stud, with collar, for ratchet gear Fig. A	
7	Set Screw, $\frac{5}{8}''$ x $\frac{1}{2}''$ headless, for spring Fig. 8	35966
8	Spring, for brake shoe Fig. 10	30090
9	Backing Plate, for brake shoe Fig. 10	30085
10	Brake Shoe, for ratchet gear Fig. A	30086
11	Washer, for ratchet gear Fig. A	30089
12	Roller Bearing Complete, for intermediate gear Fig. C	29998
15	Latch, for side door	42018
16	Rivet, $\frac{3}{16}''$ x $\frac{1}{2}''$ rd. hd., for fastening latch Fig. 15 to top of side door	0204
17	Rivet, $\frac{3}{16}''$ x $\frac{3}{8}''$ rd. hd., for fastening latch Fig. 15 to bottom of side door	0203
18	Partition, sheet iron	30041
19	Wire Conduit, for carrying wires from mast to signal mechanism.	34337
19a	as above, except with two tap bolts Fig. 20	
20	Tap Bolt, $\frac{3}{8}''$ x 1″ hex. hd. for fastening wire conduit Fig. 19 to signal mast	0597
21	Wire Conduit Complete as shown, for carrying wires from signal mast to signal mechanism on signals giving right hand indication. (1-21b, 1-24, 1-25)	

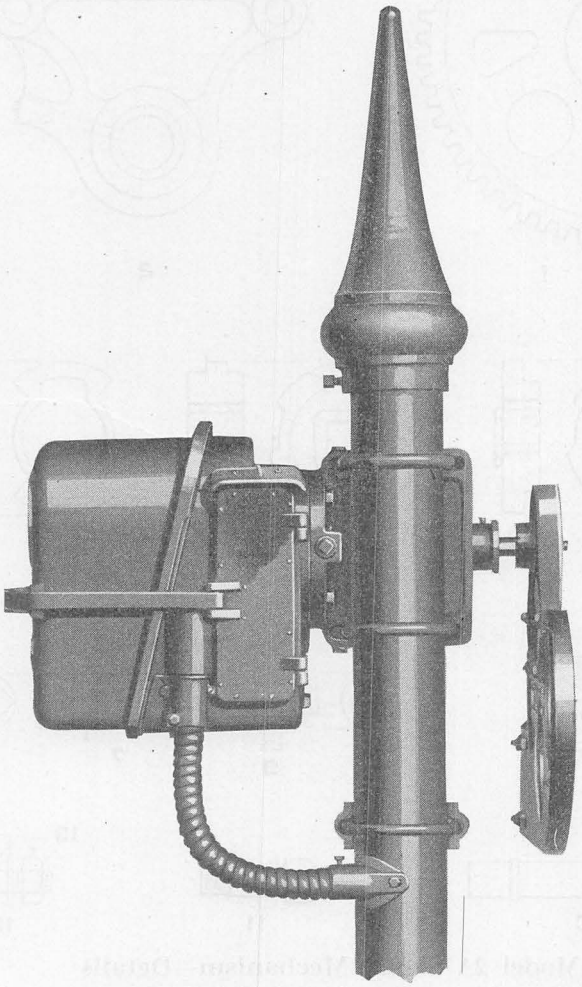
GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A, Top-of-Mast

Signal Mechanism Details

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
21a	same as Fig. 21, except for signals giving left hand indication. (1-21c, 1-24, 1-25)	
21b	Conduit only, $1\frac{1}{2}''$ inside diameter, 20″ long, for conduits complete Figs. 21 and 22	43355
21c	Conduit only, $1\frac{1}{2}''$ inside diameter, $23\frac{1}{2}''$ long, for conduits complete Figs. 21a and 22a	43356
22	Wire Conduit Complete, same as Fig. 21 except with coupling Fig. 26 in place of Fig. 25. Used in connection with conduit Fig. 23 for carrying wires from signal mast to signal mechanism and electric light on signals giving right hand indication. (1-21b, 1-24, 1-26)	
22a	as above, except for signals giving left hand indication. (1-21c, 1-24, 1-26)	
23	Wire Conduit Complete as shown. Used in connection with conduits Figs 22 and 22a for carrying wires from signal mast to electric light. (1-23a, 1-27, 1-28)	41659
23a	Conduit only, $\frac{3}{4}''$ inside diameter, 2′–7″ long, for conduit complete Fig. 23	43368
24	Coupling, with two rd. hd. screws and one $\frac{3}{8}''$ x 1″ hex. hd. tap bolt, used on signal mechanism end of conduits Figs. 21, 21a, 22 and 22a	43357
25	Coupling with one $\frac{3}{8}''$ x 1″ hex. hd. tap bolt. Used on signal mast end of conduits Figs. 21 and 21a	43359
26	Coupling, with one $\frac{3}{8}''$ x 1″ hex. hd. tap bolt includes tapped hole for conduits Figs. 22 and 22a	43358
27	Connector, with bushing, lock nut and one rd. hd. screw. Used on electric light end of conduit Fig. 23	
28	Connector, with one rd. hd. screw. Used on signal mast end of conduit Fig. 23	43369
29	Coupling, with two rd. hd. screws. Used as wire inlet to mechanism case	



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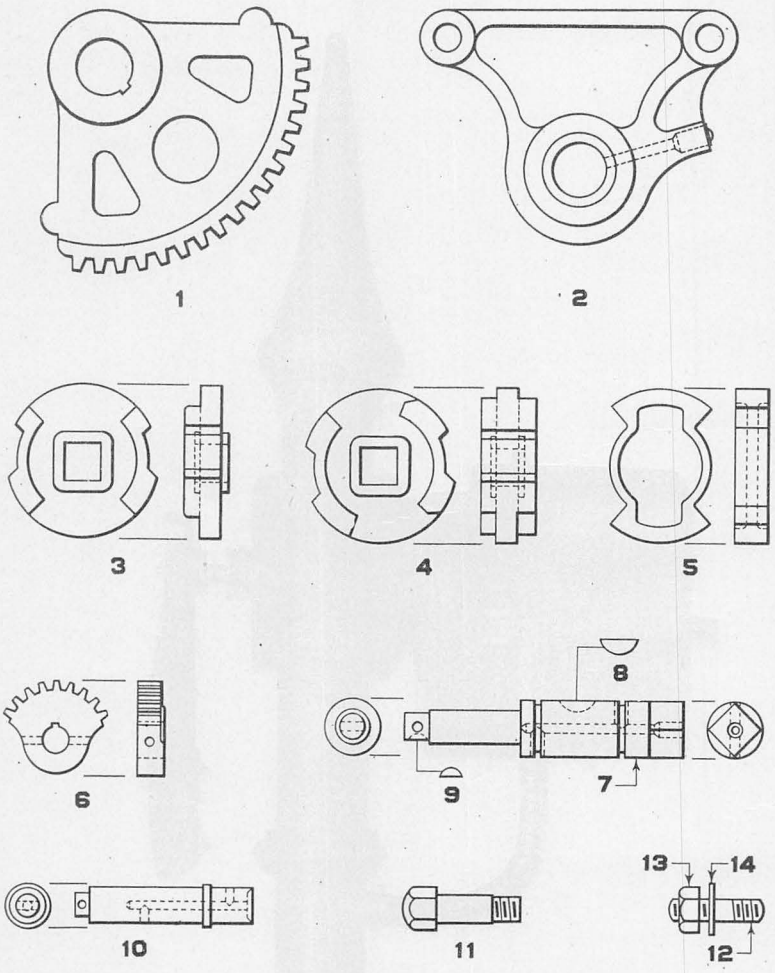

Model 2A Signal Mechanism—Details

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Model 2A, Top-of-Mast

Signal Mechanism Details

Note: Details as illustrated on opposite page are used with top-of-mast signal mechanism and dwarf signal mechanism as shown on Plates S0601, S0603 and S0701.

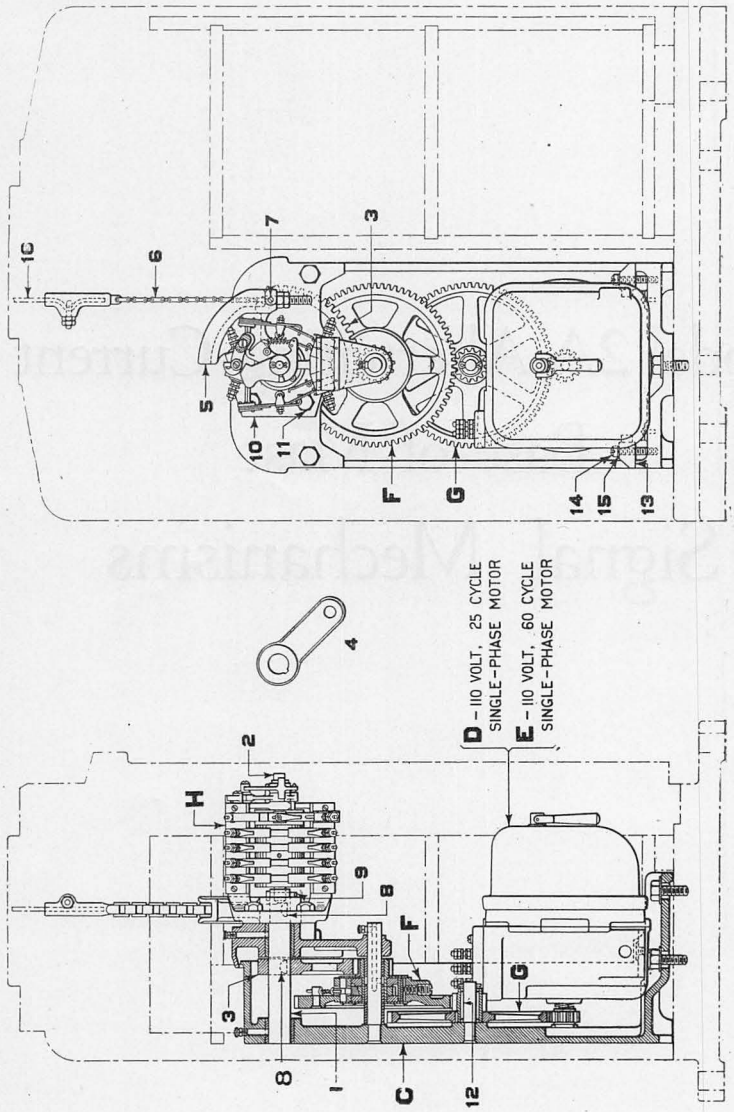
Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
1	Main Sector, for operating main shaft Fig. 7	29830
2	Bearing Bracket, complete with bushing and oiler, for supporting main shaft Fig. 7	29833
2a	Oiler, for bearing bracket Fig. 2	0803
3	Machine Driver, used with inside stop bearing on top-of-mast signal mechanism as shown on Plate S0701	34627
4	Machine Driver, used with dwarf signal and with outside stop bearing on top-of-mast signal mechanism, as shown on Plates S0601 and S0701	29912
5	Intermediate Driver	29911
6	Sector, for operating circuit controller	29842
7	Main Shaft	29839
7a	as above, except with one $\frac{3}{16}''$ x 2″ cotter pin and woodruff keys Figs. 8 and 9	
8	Woodruff Key, for fastening main sector Fig. 1 to shaft	028
9	Woodruff Key, for fastening sector Fig. 6 to shaft	027
10	Stud, for supporting ratchet gear	29837
11	Dowel Screw, $\frac{5}{8}''$ x $1\frac{7}{8}''$ hex. hd., for fastening bearing bracket Fig. 2 to mechanism case	29849
12	Stud, for fastening circuit controller to mechanism case	14934
12a	as above, except with nut and washer (1-12, 1-13, 1-14)	
13	Nut, $\frac{1}{2}''$ hex., for stud Fig. 12	0286
14	Washer, $\frac{1}{2}''$, for stud Fig. 12	17492

Memoranda

Section S, Part 8

Model 2A Alternating-Current Base-of-Mast Signal Mechanisms



A—with 110 Volt, 25 Cycle, Single-Phase Motor Fig. D
B—with 110 Volt, 60 Cycle, Single-Phase Motor Fig. E

One Arm, Model 2A, Alternating-Current, Base-of-Mast Signal Mechanism

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

Note: Circuit controllers are equipped with the contacts necessary for the local control of the signal only. Maximum contact equipment is shown merely as a matter of information.

If pole changing contacts or extra drag contacts are required, same must be specified. State the positions of the signal blade at which each extra contact is to make and break, considering the stop position as 0 degree.

For Semaphore Oil and Oiling diagrams see Part 11 of this Section.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Model 2A, 110 volt, 25 cycle, single-phase Signal Mechanism Complete, for one arm base of mast signals. Specify spectacle to be used and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles.	
A1	same as Fig. A, except with mechanism case Plate S1301 Fig. A, and shelving shown in dot and dash lines on opposite page	
A2	same as Fig. A, except with combined mechanism and instrument case Plate S1301 Fig. B and shelving shown in dot and dash lines on opposite page	
A3	same as Fig. A, except with mechanism and instrument case with shelving as shown for signals complete Figs. C and D Plate S0205	
B	Model 2A, 110 volt, 60 cycle, single-phase Signal Mechanism Complete, for one arm base of mast signals. Specify spectacle to be used and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles.	
B1	same as Fig. B, except with mechanism case Plate S1301 Fig. A, and shelving as shown in dot and dash lines on opposite page	
B2	same as Fig. B, except with combined mechanism and instrument case Plate S1301 Fig. B and shelving shown in dot and dash lines on opposite page	

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
B3	same as Fig. B, except with mechanism and instrument case with shelving as shown for signals complete Figs. C and D Plate S0205	
C	Frame Complete, includes bearing, stud, bushings, etc. For details see Plate S0807 Fig. A	
D	Motor Complete, 110 volts, 25 cycle, single-phase. For details and specifications see Plate S0901 Fig. A	43100
E	Motor Complete, 110 volts, 60 cycle, single-phase. For details and specifications see Plate S0901 Fig. B	43100
F	Ratchet Gear Complete. For details see Plate S0809 Fig. A	30080
G	Intermediate Gear Complete. For details see Plate S0809 Fig. C	29965
H	Circuit Controller. For details and specifications see Plate S1005	
1	Main Shaft. For details see Plate S0809 Fig. 14	36458
1a	as above, except with two woodruff keys Fig. 8 and one pin Fig. 9	
2	Shaft, for circuit controller. For detail see Plate S1005 Fig. 6	36459
3	Sector. For detail see Plate S0809 Fig. 11	29830
4	Crank, for pipe or rod connected signals. For details see Plate S0809 Fig. 25	36055
5	Sheave Sector, for upper quadrant wire connected signals. For detail see Plate S0809 Fig. 21	40646
5a	as above, except with set screw Fig. 7	
6	Chain Connector Complete, for upper quadrant wire connected signals. For details see Plate S0809 Fig. 23	42019
7	Set Screw, $\frac{1}{4}''$ x $\frac{5}{8}''$, for sheave sector Fig. 5	18981
8	Woodruff Key, for sector Fig. 3, crank Fig. 4 and sheave sector Fig. 5	028
9	Pin, for connecting shaft Fig. 2 to main shaft Fig. 1	42146

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Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
10	Frame, for circuit controller	36063
10a	as above, except with two cap screws Fig. 11	
11	Cap Screw, $\frac{1}{2}''$ x $1\frac{1}{4}''$ hex. hd., for fastening circuit controller frame Fig. 10 to bracket	5255
12	Roller Bearing Complete, for intermediate gear Fig. G. For details see Plate S0809 Fig. 13	29998
13	Clamp, for holding motor to frame. For details see Plate S0809 Fig. 27	42307
13a	as above, except with cap screw and lock washer. (1-13, 1-14, 1-15)	
14	Cap Screw, $\frac{3}{8}''$ x $2\frac{1}{8}''$ fill. hd., slotted, for fastening clamp Fig. 13	43269
14a	as above, except with lock washer Fig. 15	
15	Lock Washer, $\frac{3}{8}''$, for screw Fig. 14	0569
16	Operating wire, for upper quadrant signals. Not included with signal mechanism complete. Price per foot	

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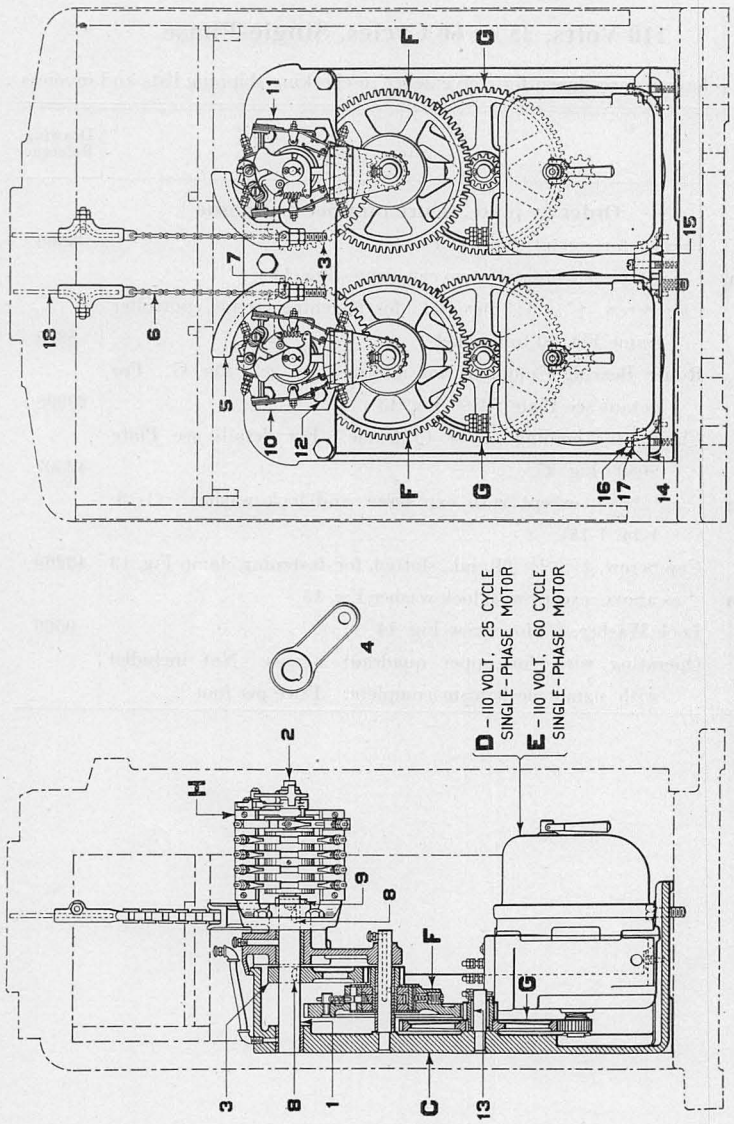

A—with 110 Volt, 25 Cycle, Single-Phase Motor Fig. D
B—with 110 Volt, 60 Cycle, Single-Phase Motor Fig. E

Two Arm, Model 2A, Alternating-Current, Base-of-Mast Signal Mechanism

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

Note: Circuit controllers are equipped with the contacts necessary for the local control of the signal only. Maximum contact equipment is shown merely as a matter of information.

If pole changing contacts or extra drag contacts are required, same must be specified. State the position of the signal blade at which each extra contact is to make and break, considering the stop position as 0 degree.

For Semaphore Oil and Oiling diagrams see Part 11 of this Section.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Model 2A, 110 volt, 25 cycle, single-phase Signal Mechanism Complete, for two arm base-of-mast signals. Specify spectacle to be used and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles.	
A1	same as Fig. A, except with mechanism case Plate S1301 Fig. A, and shelving as shown in dot and dash lines on opposite page	
A2	same as Fig. A, except with combined mechanism and instrument case Plate S1301 Fig. B and shelving shown in dot and dash lines on opposite page	
B	Model 2A, 110 volt, 60 cycle, single-phase Signal Mechanism Complete, for two arm base-of-mast signals. Specify spectacle to be used and whether signal is to operate in two or three positions. See Part 15 of this Section for spectacles	
B1	same as Fig. B, except with mechanism case Plate S1301 Fig. A, and shelving shown in dot and dash lines on opposite page	
B2	same as Fig. B, except with combined mechanism and instrument case Plate S1301 Fig. B and shelving shown in dot and dash lines on opposite page	
C	Frame Complete, includes bearing, studs, bushings, etc. For details see Plate S0807 Fig. B	

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Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
D	Motor Complete, 110 volts, 25 cycle, single-phase. For details and specifications see Plate S0901 Fig. A	43100
E	Motor Complete, 110 volts, 60 cycle, single-phase. For details and specifications see Plate S0901 Fig. B	43100
F	Ratchet Gear Complete. For details see Plate S0809 Fig. A	30080
G	Intermediate Gear Complete. For details see Plate S0809 Fig. C	29965
H	Circuit Controller. For details and specifications see Plate S1005	
1	Main Shaft. For details see Plate S0809 Fig. 14	36458
1a	as above, except with two woodruff keys Fig. 8 and one pin Fig. 9	
2	Shaft, for circuit controller. For detail see Plate S1005 Fig. 6	36459
3	Sector. For details see Plate S0809 Fig. 11	29830
4	Crank, for pipe or rod connected signals. For details see Plate S0809 Fig. 25	36055
5	Sheave Sector, for upper quadrant wire connected signals. For detail see Plate S0809 Fig. 21	40646
5a	as above, except with one set screw Fig. 7	
6	Chain Connector Complete, for upper quadrant wire connected signals. For details see Plate S0809 Fig. 23	42019
7	Set Screw, $\frac{1}{4}''$ x $\frac{5}{8}''$, headless for sheave sector Fig. 5	18981
8	Woodruff Key, for sector Fig. 3, crank Fig. 4 and sheave sector Fig. 5	028
9	Pin, for connecting shaft Fig. 2 to main shaft Fig. 1	42146
10	Frame, left hand, for circuit controller	36063
10a	as above, except with two cap screws Fig. 12	
11	Frame, right hand, for circuit controller	36052
11a	as above, except with two cap screws Fig. 12	
12	Cap Screw, $\frac{1}{2}''$ x $1\frac{1}{4}''$ hex. hd., for fastening circuit controller frames Figs. 10 and 11 to bracket	5255

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Model 2A, Alternating-Current, Base-of-Mast

Signal Mechanisms

110 Volts, 25 or 60 Cycles, Single-Phase

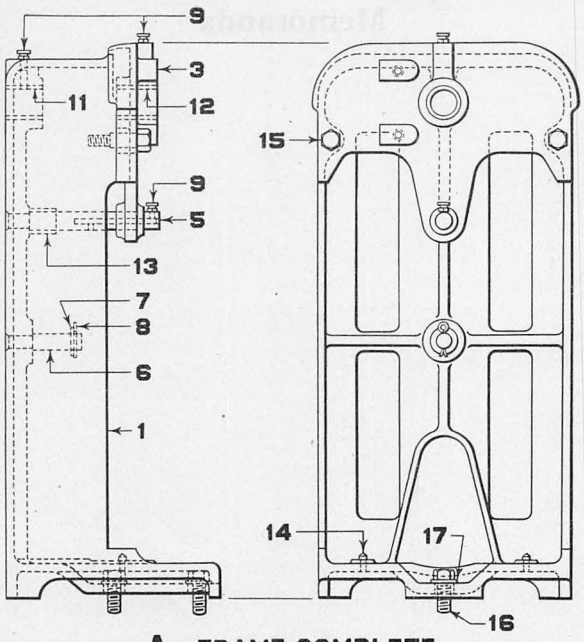
Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
13	Roller Bearing Complete, for intermediate gear Fig. J. For details see Plate S0809 Fig. 13	29998
14	Clamp, for holding motor to frame. For detail see Plate S0809 Fig. 27	42307
14a	as above, except with cap screw and lock washer. (1-14, 1-16, 1-17)	
15	Clamp, for holding motors to frame. For detail see Plate S0809 Fig. 26	50266
15a	as above, except with cap screw and lock washer. (1-15, 1-16, 1-17)	
16	Cap Screw $\frac{3}{8}''$ x $2\frac{1}{8}''$ fill. hd., slotted for fastening clamps Figs. 14 and 15	43269
16a	as above, except with lock washer Fig. 17	
17	Lock Washer, for screw Fig. 16	0569
18	Operating wire, for upper quadrant signals. Not included with signal mechanism complete. Price per foot	

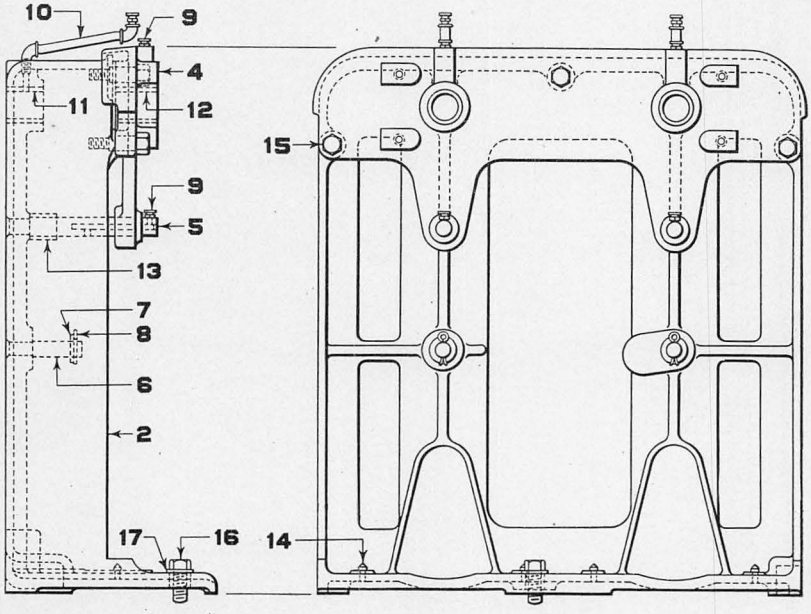
Memoranda

Memoranda

GENERAL RAILWAY SIGNAL COMPANY June 1917



A – FRAME COMPLETE



B – FRAME COMPLETE

Base-of-Mast Signal Mechanism—Details

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A, Base-of-Mast

Signal Mechanism Details

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Frame Complete as shown, for one arm base-of-mast signal mechanism. (1-1a, 1-3a)	
B	Frame Complete as shown, for two arm base-of-mast signal mechanism. (1-2a, 1-4a)	
1	Frame, for Fig. A, includes studs, bushing and dowel pins. (1-frame, 1-5, 1-6, 1-11, 2-14)	
1a	as above, except with washer, cotter pin, spacer, oil cups and tap bolt. (1-1, 1-7, 1-8, 2-9, 1-13, 2-16, 2-17)	
2	Frame, for Fig. B, includes studs, bushings and dowel pins. (1-frame, 2-5, 2-6, 2-11, 4-14)	
2a	as above, except with washers, cotter pins, spacers, oil cups and tap bolts. (1-2, 2-7, 2-8, 2-9, 2-10, 2-13, 1-16, 1-17)	
3	Bearing Bracket, for Fig. A, includes bushing Fig. 12	
3a	as above, except with oil cups and dowel screws. (1-3, 1-9, 2-15)	
4	Bearing Bracket, for Fig. B, includes two bushings Fig. 12	
4a	as above, except with oil cups and dowel screws. (1-4, 2-9, 3-15)	
5	Stud, $\frac{7}{8}''$, for ratchet gear	36053
5a	as above, except with oil cup Fig. 9	
6	Stud, $\frac{3}{4}''$, for intermediate gear	36054
6a	as above, except with washer and cotter pin. (1-6, 1-7, 1-8)	
7	Washer, $\frac{3}{4}''$, for stud Fig. 6	23165
8	Cotter pin, $\frac{1}{8}''$ x $1''$, for stud Fig. 6	040
9	Oil Cup, for main shaft and stud Fig. 5	32418
10	Oil Tube Complete, for oiling rear end of main shaft on two arm frame Fig. B, includes oil cup Fig. 9	
11	Bushing, for frames Figs. 1 and 2. Note: Bushing must be drilled for oil hole when assembling	22135
12	Bushing, for bearing brackets Figs. 3 and 4. Note: Bushing must be drilled for oil hole when assembling	22136

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A, Base-of-Mast

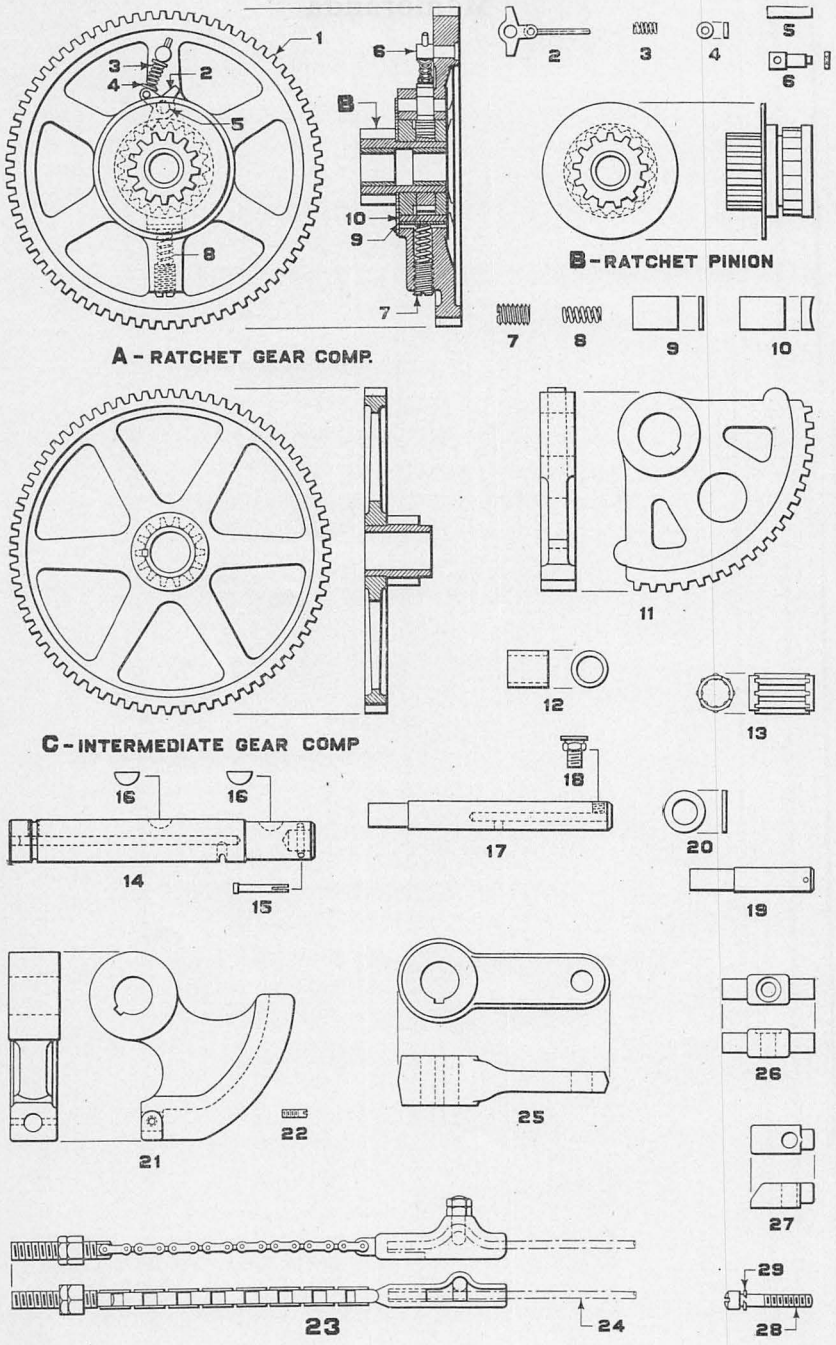
Signal Mechanism Details

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
13	Spacer, for ratchet gear	36059
14	Dowel Pin, for fastening motor to frame	36056
15	Dowel Screw, $\frac{5}{8}''$ x $2\frac{1}{4}''$ hex. hd., for fastening bearing brackets Figs. 3 and 4 to frames Figs. 1 and 2	36057
16	Tap bolt, $\frac{5}{8}''$ x $1\frac{1}{2}''$ hex. hd., for fastening frames Figs. 1 and 2 to mechanism case	0503
16a	as above, except with washer Fig. 17	
17	Washer, for tap bolt Fig. 16	087

Memoranda

PLATE S0809



Base-of-Mast Signal Mechanism—Details

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A, Base-of-Mast

Signal Mechanism Details

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Ratchet Gear Complete as shown. (1-B, 1-1, 1-2, 1-3, 2-4,1-5, 1-6, 1-7, 1-8, 1-9, 1-10)	30080
B	Ratchet Pinion, for ratchet gear Fig. A	30079
C	Intermediate Gear Complete as shown	29965
C1	as above, except with roller bearing Fig. 13	
1	Ratchet Gear only, for Fig. A	30081
2	Pawl Complete as shown, for ratchet gear Fig. A	42438
3	Spring, for ratchet gear Fig. A	30875
4	Washer, $\frac{3}{16}''$, for spring Fig. 3	15394
5	Pin, $\frac{3}{8}''$ x $1\frac{3}{8}''$, for fastening pawl Fig. 2 to gear Fig. 1	30521
6	Stud, with collar, for ratchet gear Fig. A	
7	Set Screw, $\frac{5}{8}''$ x $\frac{1}{2}''$, headless, for spring Fig. 8	35966
8	Spring, for brake shoe Fig. 10	30090
9	Backing Plate, for brake shoe Fig. 10	30085
10	Brake Shoe, for ratchet gear Fig. A	30086
11	Sector, for operating main shaft Fig. 14	29830
12	Spacer, for ratchet gear Fig. A	36059
13	Roller Bearing Complete for intermediate gear Fig. C	29998
14	Main Shaft	36458
14a	as above, except with woodruff keys and pin. (1-14, 1-15, 2-16)	
15	Pin, for connecting circuit controller shaft to main shaft Fig. 14.	42146
16	Woodruff Key, for fastening sector Fig. 11, sheave sector Fig. 21 and crank Fig. 25 to main shaft Fig. 14	028
17	Stud, $\frac{7}{8}''$, for supporting ratchet gear Fig. A	36053
17a	as above, except with oil cup Fig. 18	
18	Oil Cup, for stud Fig. 17	32418
19	Stud, $\frac{3}{4}''$, for supporting intermediate gear Fig. C	36054
19a	as above, except with washer Fig. 20 and one $\frac{1}{8}''$ x $1''$ cotter pin	
20	Washer, $\frac{3}{4}''$, for stud Fig. 19	23165

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A, Base-of-Mast

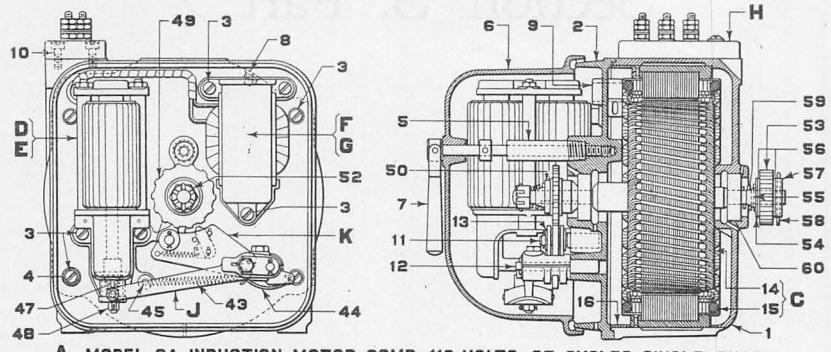
Signal Mechanism Details

Drawing references are shown for convenience in checking shipping lists and invoices.

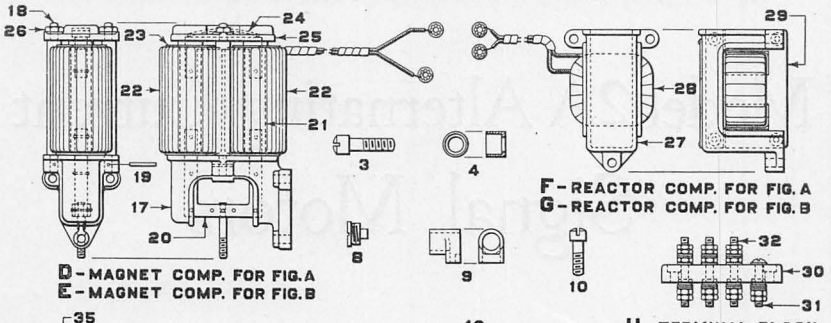
Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
21	Sheave Sector, for upper quadrant, wire connected signals....	40646
21a	as above, except with one set screw Fig. 22.....	
21b	same as Fig. 21, except with set screw and chain connector. (1-21, 1-22, 1-23).....	
22	Set Screw, $\frac{1}{4}''$ x $\frac{5}{8}''$, headless, for sheave sector Fig. 21.....	18981
23	Chain Connector Complete as shown, for connecting to sheave sector Fig. 21. Does not include operating wire Fig. 24.	42019
	Note: See Plate S1406 Fig. 16 for jaw, for connecting operating wire to crank on spectacle shaft.	
24	Operating wire, for upper quadrant signals. Price per foot....	
25	Crank, for pipe connected signals.....	36055
26	Clamp, for fastening motors to frame, used only with two arm signal mechanism.....	50266
26a	as above, except with cap screw and lock washer. (1-26, 1-28, 1-29).....	
27	Clamp, for fastening motor to frame.....	42307
27a	as above, except with cap screw and lock washer. (1-27, 1-28, 1-29).....	
28	Cap Screw, $\frac{3}{8}''$ x $2\frac{1}{8}''$ fill. hd., slotted, for fastening clamps Figs. 26 and 27 to frame.....	43269
28a	as above, except with lock washer Fig. 29.....	
29	Lock Washer, $\frac{3}{8}''$, for screw Fig. 28.....	0569

Section S, Part 9

Model 2A Alternating-Current Signal Motors



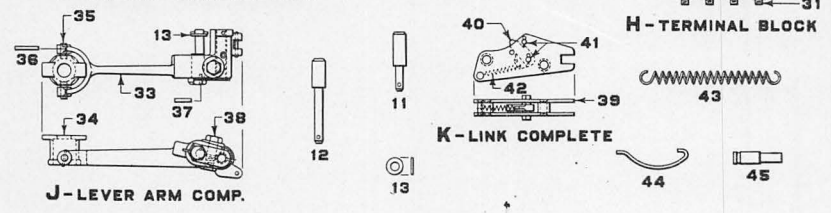
A-MODEL 2A INDUCTION MOTOR COMP.-110 VOLTS, 25 CYCLES, SINGLE-PHASE
B-MODEL 2A INDUCTION MOTOR COMP.-110 VOLTS, 60 CYCLES, SINGLE-PHASE



D-MAGNET COMP. FOR FIG. A
E-MAGNET COMP. FOR FIG. B

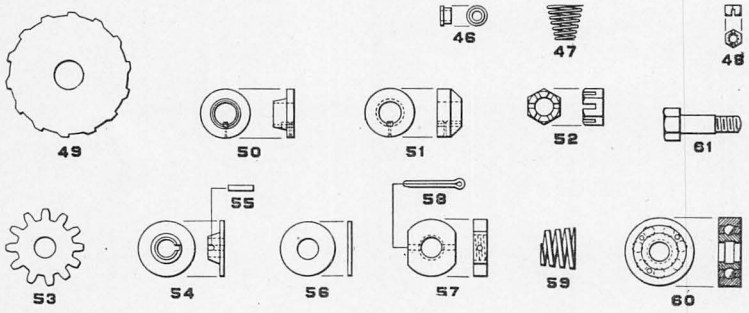
F-REACTOR COMP. FOR FIG. A
G-REACTOR COMP. FOR FIG. B

H-TERMINAL BLOCK



J-LEVER ARM COMP.

K-LINK COMPLETE



Model 2A Alternating-Current Motors

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A Alternating-Current

Motors and Motor Parts

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Motor Complete as shown, 110 volts, 25 cycles, single-phase, for top-of-mast or base-of-mast signal mechanisms. Specify whether signal is to operate in upper or lower quadrant, right or left hand indication and if for two arm base of mast signal specify whether motor is to operate upper or lower arm.	43100
B	Motor Complete, 110 volts, 60 cycles, single-phase, for top-of-mast or base-of-mast signal mechanisms. Specify whether signal is to operate in upper or lower quadrant, right or left hand indication and if for two arm base of mast signal specify whether motor is to operate upper or lower arm.	43100
C	Rotor and Stator Complete, for 110 volt, 25 cycle, single-phase motor Fig. A. (1-14, 1-15)	
C1	as above, except for 110 volt, 60 cycle, single-phase motor Fig. B. (1-14a, 1-15a)	
D	Magnet Complete as shown, for retaining mechanism on 110 volt, 25 cycle, single-phase motor Fig. A. (1-17a, 2-18, 2-19, 1-20, 2-21, 2-22, 4-23, 1-24, 1-25, 2-26)	43111
E	Magnet Complete, for retaining mechanism on 110 volt, 60 cycle, single-phase motor Fig. B. (1-17a, 2-18, 2-19, 1-20, 2-21, 2-22a, 4-23, 1-24, 1-25, 2-26)	
F	Reactor Complete as shown, for 110 volt, 25 cycle, single-phase motor Fig. A. (1-27, 1-28, 1-29)	43101
G	Reactor Complete, for 110 volt, 60 cycle, single-phase motor Fig. B. (1-27, 1-28a, 1-29)	
H	Terminal Block Complete as shown. (1-30, 1-31, 3-32)	43119
J	Lever Arm Complete as shown, for retaining mechanism. (1-33, 1-34, 2-35, 2-36)	
	Note: Pin Fig. 37 is shipped loose and must be inserted when assembling. After link Fig. K is properly adjusted a $\frac{1}{8}''$ drill should be run through the hole in the eccentric stud and pin Fig. 37 driven in.	

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A Alternating-Current

Motors and Motor Parts

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
K	Link Complete as shown, for retaining mechanism. Specify whether signal is to operate in upper or lower quadrant right or left hand indication and if for two arm base of mast signal specify whether motor operates upper or lower arm. (1-39, 1-40, 1-41a, 1-42)	43108
1	Motor Frame only	43120
2	Bearing Bracket only	43122
2a	as above, except with pins, washers and cotters for supporting lever arm Fig. J and link Fig. K. (1-2, 1-11a, 1-12a, 1-45).	
3	Screw, $\frac{5}{16}''$ x 1″, fill. hd., for fastening bearing bracket Fig. 2 to motor frame Fig. 1, and Figs. D, E, F and G to bearing bracket Fig. 2	39157
4	Cup, for screw Fig. 3	43174
5	Tube, for handle Fig. 7	43156
6	Cover, with gasket	
6a	as above, except with handle complete Fig. 7 for fastening to bearing bracket Fig. 2	43110
7	Handle Complete, with screw rod, collars and pins	
8	Set Screw, for fastening stator Fig. 15 to motor frame Fig. 1	43175
9	Insulating Bushing, for lead wires	43132
10	Screw, fill. hd., for fastening terminal block Fig. H to motor frame Fig. 1	8150
11	Pin, for supporting link Fig. K	43137
11a	as above, except with washer and one $\frac{3}{32}''$ x $\frac{1}{2}''$ cotter pin	
12	Pin, for supporting lever arm Fig. J	43139
12a	as above, except with washer and one $\frac{3}{32}''$ x $\frac{1}{2}''$ cotter pin	
13	Washer, for pins Figs. 11 and 12 and for stud on lever arm Fig. 33	36390
14	Rotor Complete, for 110 volt, 25 cycle, single-phase motor Fig. A.	43103
14a	as above, except for 110 volt, 60 cycle, single-phase motor Fig. B	

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A Alternating-Current

Motors and Motor Parts

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
15	Stator Complete, for 110 volt, 25 cycle, single-phase motor Fig. A	39801
15a	as above, except for 110 volt, 60 cycle, single-phase motor Fig. B	
16	Retaining Ring, for holding stator Fig. 15 in place	43149
17	Magnet Support Complete, includes studs and pins. (1-17a, 2-18, 2-19)	
17a	Magnet Support only	43123
18	Stud, for magnet support Fig. 17	43146
19	Pin, $\frac{3}{32}''$ x $\frac{13}{16}''$ for fastening stud Fig. 18 to magnet support Fig. 17a	2540
20	Armature and Core Complete, includes stud for fastening to lever arm Fig. J	
21	Tube, for coil Fig. 22	43131
22	Coil, for 110 volt, 25 cycle, single-phase motor, includes eyelet for fastening to terminal block Fig. H. Used on magnet complete Fig. D	
22a	as above, except for 110 volt, 60 cycle, single-phase motor. Used on magnet complete Fig. E	
23	Washer, used on top and bottom of coil Fig. 22	43158
24	Spring, for cap Fig. 25	43136
25	Cap, for magnet support Fig. 17	43124
26	Nut, $\frac{5}{16}''$ hex. for stud Fig. 18	43167
27	Reactor Frame only	43127
28	Coil, for 110 volt, 25 cycle, single-phase motor, includes eyelet for fastening to terminal block Fig. H. Used on reactor complete Fig. F	
28a	as above, except for 110 volt, 60 cycle, single-phase motor. Used on reactor complete Fig. G	
29	Core Complete, for reactors Figs. F and G	
30	Terminal Block only, for Fig. H	43130
31	Binding Post Complete, for Fig. H. (1-31a, 1-31b, 2-31c, 4-31d)	

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A Alternating-Current

Motors and Motor Parts

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
31a	Screw, rd. hd., for binding post Fig. 31	48560
31b	Nut, square, for binding post Fig. 31	42835
31c	Nut, hex., for binding posts Figs. 31 and 32	42839
31d	Washer, for binding posts Figs. 31 and 32	1225
32	Binding Post Complete, for Fig. H. (5-31c, 5-31d, 1-32a)	
32a	Stud, with sq. nut., for binding post Fig. 32	43106
33	Lever Arm Complete, includes all parts as shown for Fig. J except Figs. 34, 35 and 36	
	Note: Pin Fig. 37 is shipped loose and must be inserted when assembling. After link Fig. K is properly adjusted a $\frac{1}{8}''$ drill should be run through the hole in the eccentric stud and pin Fig. 37 driven in	
34	Socket, for lever arm Fig. 33	43143
35	Pin, $\frac{1}{4}''$ x $\frac{7}{16}''$, for fastening socket Fig. 34 to lever arm Fig. 33	43148
36	Pin, $\frac{3}{32}''$ x $\frac{5}{8}''$, for fastening pin Fig. 35 to lever arm Fig. 33	19539
37	Pin, $\frac{1}{8}''$ x $\frac{1}{2}''$, for fastening stud to lever arm Fig. 33	1240
38	Screw, $\frac{5}{16}''$ x $\frac{7}{8}''$, hex. hd., for lever arm Fig. 33	43164
39	Link, two sides assembled with spacers, for Fig. K	
40	Dog, with bushing for Fig. K	43173
41	Pin, $\frac{3}{16}''$ x $\frac{7}{8}''$, for link Fig. 39	32689
41a	as above, except with two $\frac{1}{16}''$ x $\frac{3}{8}''$ cotter pins	
42	Spring, for dog Fig. 40	33203
43	Spring, used with lever arm Fig. J	43133
44	Link, used with spring Fig. 43	43155
45	Pin, for holding spring Fig. 43 to bearing bracket Fig. 2	43138
46	Bushing, for stud on armature Fig. 20	43153
47	Spring, used with armature Fig. 20	43135
48	Nut, hex. slotted, for stud on armature Fig. 20	48571
49	Friction Disc, for retaining mechanism	43128
50	Friction Cone Complete as shown, for friction disc Fig. 49	43115
51	Collar Complete as shown, used between friction disc Fig. 49 and Ball Bearing Fig. 60	43116

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A Alternating-Current

Motors and Motor Parts

110 Volts, 25 or 60 Cycles, Single-Phase

Drawing references are shown for convenience in checking shipping lists and invoices.

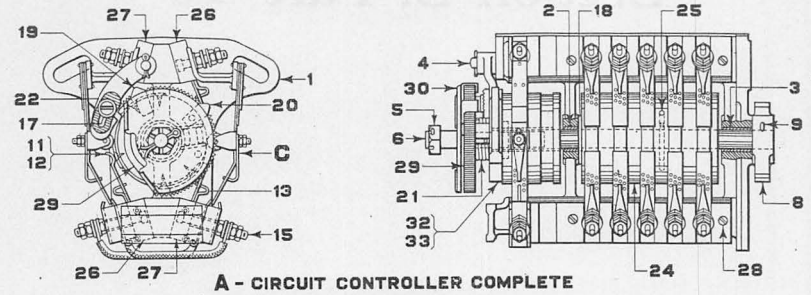
Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
52	Nut, $\frac{1}{2}''$, hex. slotted, used on rotor shaft	43180
53	Motor Pinion	30075
54	Friction Cone, for motor pinion Fig. 53	30077
55	Pin, $\frac{1}{8}''$ x $\frac{9}{16}''$, for friction cone Fig. 54	16448
56	Friction Washer, for friction cone Fig. 54 and collar Fig. 57	30078
57	Collar, for pinion end of shaft	30650
58	Cotter Pin, $\frac{1}{8}''$ x $1\frac{1}{4}''$, for collar Fig. 57	041
59	Spring, for friction cones Figs. 50 and 54	30506
60	Ball Bearing Complete	47790
61	Dowel Screw, for fastening motor to mechanism case	30049

Memoranda

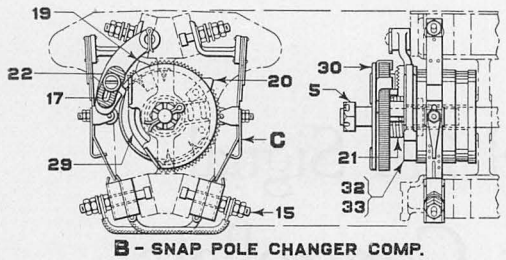
Section S, Part 10

Model 2A Signal Circuit Controllers

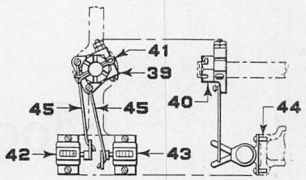
GENERAL RAILWAY SIGNAL COMPANY June 1917



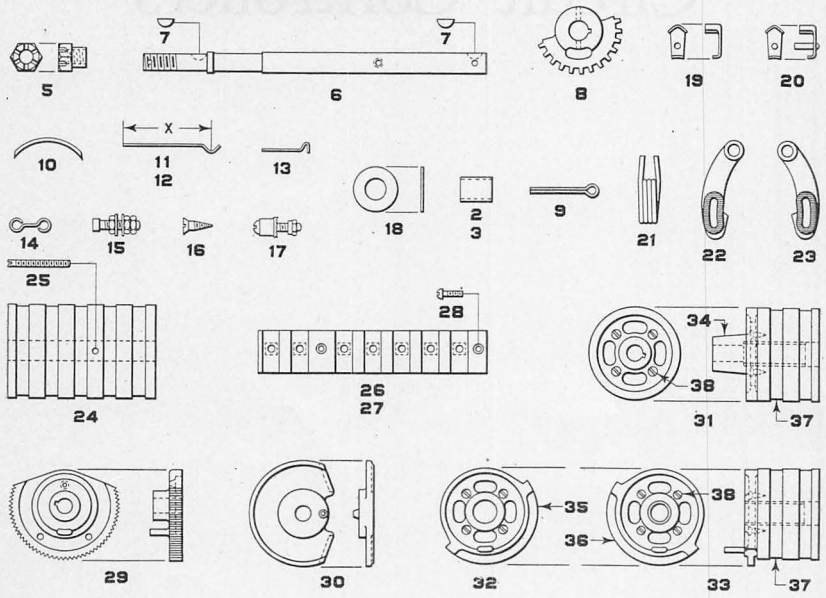
A - CIRCUIT CONTROLLER COMPLETE



B - SNAP POLE CHANGER COMP.



D - COUNTER COMP.



Model 2A Circuit Controller for Top-of-Mast Signals

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A

Circuit Controller and Parts

For Top-of-Mast Signal Mechanism

Note: Maximum contact equipment is shown merely as a matter of information. For relay type contacts, pole-changer contacts, slip contact and other details for circuit controller see Plate S1007.

SPECIFICATIONS FOR CIRCUIT CONTROLLER:

1. Specify whether signal is two or three position.
2. Specify whether signal operates in upper or lower quadrant, right or left hand indication.
3. Specify degrees of travel of signal arm.
4. Specify whether or not pole-changing contacts are required. If required, state position of signal arm at which polarity is to be changed.
5. Specify number of extra contacts.
6. Specify position of signal arm at which each extra contact is to make and break.

Extra contacts are all contacts other than those required for the local control of the signal mechanism in question.

Combinations of contacts are as follows:

10 drag contacts and 0 snap contacts.

10 drag contacts and 4 snap contacts.

14 drag contacts and 0 snap contacts.

Note: When 14 drag contacts are required, circuit controller is equipped with extra drag commutator Fig. 31.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Circuit Controller Complete. See specifications above.....	34610
B	Snap Pole Changer Complete. See specifications above.....	
C	Pole Changer Contact Complete. For details see Plate S1007 Fig. B.....	

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A

Circuit Controller and Parts

For Top-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
D	Counter Complete as shown, for three position signals. (1-39, 1-40, 1-41, 1-42, 1-43, 4-44, 2-45)	
D1	as above, except without castle nut Fig. 40 and cotter pin Fig. 41. (1-39, 1-42, 1-43, 4-44, 2-45)	38408
D2	Counter Complete, for two position Signals. (1-39, 1-40, 1-41, 1-43, 2-44, 1-45)	
D3	as above, except without castle nut Fig. 40 and cotter pin Fig. 41. (1-39, 1-43, 2-44, 1-45)	38409
1	Frame, with bushings and stud. (1-frame, 1-2, 1-3, 1-4)	
2	Bushing, for snap commutator end of frame Fig. 1	34663
3	Bushing, for sector end of frame Fig. 1	29850
4	Stud, for fastening latch arms Figs. 22 and 23 to frame Fig. 1	34657
5	Castle Nut, for shaft Fig. 6	34659
6	Shaft	34647
6a	as above, except with two woodruff keys Fig. 7 and one $\frac{1}{8}''$ x $1\frac{1}{4}''$ cotter pin	
7	Woodruff Key, for fastening sector Fig. 8 and trip plate Fig. 29 to shaft Fig. 6	027
8	Sector, for operating circuit breaker	34646
9	Cotter Pin, $\frac{3}{16}''$ x $1\frac{3}{4}''$, for fastening sector Fig. 8 to shaft Fig. 6.	045
10	Contact. State the positions of signal arm at which contact is to make and break	
11	Contact Spring, dimension X = $2\frac{5}{8}''$	29966
12	Contact Spring, dimension X = $2\frac{3}{4}''$	30829
13	Adjuster, for contact springs Figs. 11 and 12	29967
14	Connector, for binding posts	35377
15	Binding Post, with nuts and washers. (1-15a, 3-15b, 2-15c)	
15a	Screw, sq. hd., for binding post Fig. 15	48565
15b	Nut, hex., for binding post Fig. 15	42839
15c	Washer, for binding post Fig. 15	1225

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A

Circuit Controller and Parts

For Top-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
16	Wood Screw, No. 6 x $\frac{1}{2}''$ flat head, for fastening contacts to commutator	30127
17	Knob, with screw and nuts, for latch arms Figs. 22 and 23. (1-17a, 1-17b, 1-17c, 1-17d)	
17a	Knob only, for Fig. 17	29969
17b	Screw, rd. hd., for knob Fig. 17	50636
17c	Nut, hex., for screw Fig. 17b	48569
17d	Nut, sq., for screw Fig. 17b	48570
18	Washer, used between drag commutator and frame	35133
19	Trip Finger, for tripping latch arms Figs. 22 and 23	34655
20	Trip Finger, with stud, for tripping latch arms Figs. 22 and 23, used for positive return of snap pole changer	39937
21	Spring, for snapping commutator	40137
22	Latch Arm, left hand	34654
23	Latch Arm, right hand	34653
24	Drag Commutator, five way	29972
25	Set Screw, No. 10 x $1\frac{15}{16}''$ headless, for fastening drag commutator Fig. 24 to Shaft Fig. 6	42147
26	Contact Block, right hand upper and left hand lower	43274
27	Contact Block, left hand upper and right hand lower	43273
28	Screw, No. 10 x $\frac{5}{8}''$ rd. hd., for fastening contact blocks Figs. 26 and 27 to frame Fig. 1	2829
29	Trip Plate, for trip fingers Figs. 19 and 20	34650
30	Lock Plate, for trip fingers Figs. 19 and 20	34651
31	Drag Commutator, with retainer plate, bushing and screws. Used when circuit controller is equipped with fourteen drag contacts. (1-34, 1-37, 4-38)	
32	Snap Commutator, for snap pole changer, with latch plate, bushing and screws, for two or three position, upper quadrant right hand indication and lower quadrant left hand indication. (1-35, 1-37, 4-38)	

GENERAL RAILWAY SIGNAL COMPANY June 1917

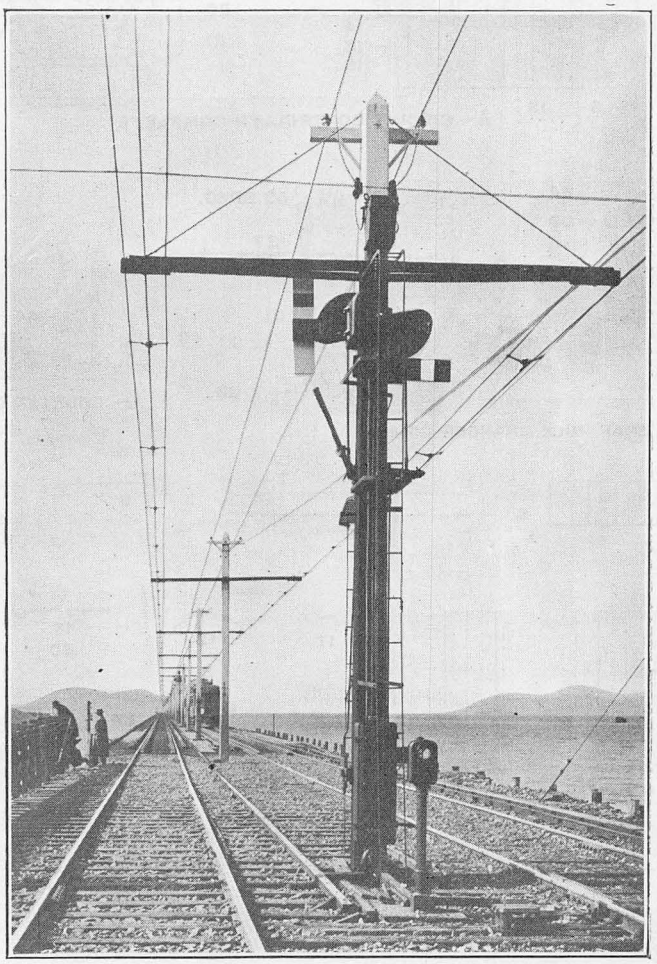
Model 2A

Circuit Controller and Parts

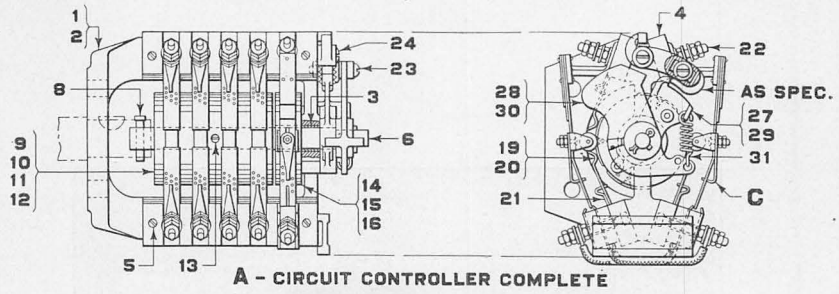
For Top-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

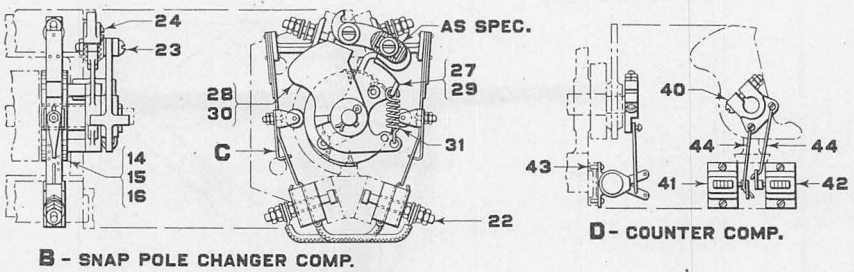
Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
33	Snap Commutator, for snap pole changer, with latch plate, bushing and screws, for two or three position, lower quadrant right hand indication and upper quadrant left hand indication. (1-36, 1-37, 4-38)	
34	Retainer Plate only, for drag commutator Fig. 31	40662
35	Latch Plate only, for snap commutator Fig. 32	38938
36	Latch Plate only, for snap commutator Fig. 33	38939
37	Snap Commutator, with bushing, for Figs. 31, 32 and 33	
38	Wood Screw, No. 8 x $1\frac{1}{2}''$ flat head, for fastening latch plates to commutator	43669
39	Clamp Arm, with screws and nuts, for counters. (1-39a, 1-39b, 2-39c, 2-39d)	
39a	Clamp Arm only, for Fig. 39	34660
39b	Screw No. 10 x $1\frac{1}{4}''$ rd. hd., for clamp arm Fig. 39	4591
39c	Nut, No. 10 hex., for screw Fig. 39b	577
39d	Screw, No. 6 x $\frac{3}{8}''$ rd. hd., for holding operating rod Fig. 45 to clamp arm Fig. 39	36392
40	Castle Nut, for counters	34659
41	Cotter Pin, $\frac{1}{8}''$ x $1\frac{1}{4}''$, for fastening castle nut Fig. 40 to shaft	041
42	Counter, left hand	20567
43	Counter, right hand	26674
44	Screw, No. 4 x $\frac{3}{8}''$ rd. hd., for fastening counters Figs. 42 and 43 to frame Fig. 1	29107
45	Operating Rod, for counters Figs. 42 and 43	34666



GENERAL RAILWAY SIGNAL COMPANY June 1917

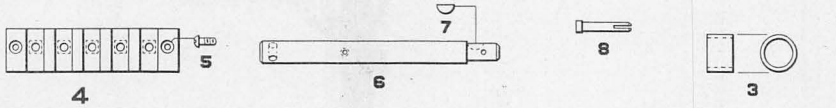


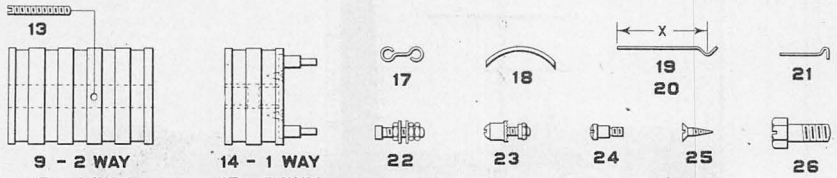
A - CIRCUIT CONTROLLER COMPLETE

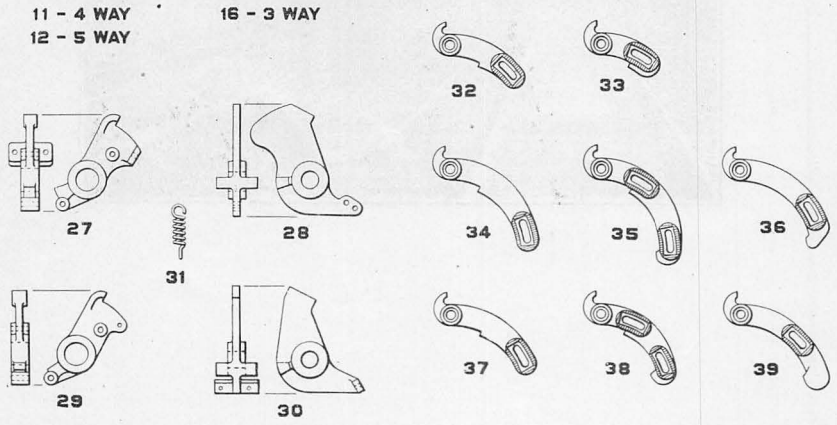


B - SNAP POLE CHANGER COMP.

D - COUNTER COMP.







Model 2A Circuit Controller for Base-of-Mast Signals

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A

Circuit Controller and Parts

For Base-of-Mast Signal Mechanism

Note: Maximum contact equipment is shown merely as a matter of information. For relay type contacts, pole changer contacts, slip contact and other details for circuit controller see Plate S1007.

SPECIFICATIONS FOR CIRCUIT CONTROLLER:

1. Specify whether signal is two or three position.
2. Specify whether signal operates in upper or lower quadrant, right or left hand indication.
3. Specify whether for upper or lower arm when required for two arm signal.
4. Specify degrees of travel of signal arm.
5. Specify whether or not pole changing contacts are required. If required state position of signal arm at which polarity is to be changed.
6. Specify number of extra contacts.
7. Specify position of signal arm at which each extra contact is to make and break.

Extra contacts are all contacts other than those required for the local control of signal mechanism in question.

Combinations of contacts are as follows:

10 drag contacts and 0 snap contacts.

8 drag contacts and 2 snap contacts.

6 drag contacts and 4 snap contacts.

4 drag contacts and 6 snap contacts.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Circuit Controller Complete. See specifications above.....	
B	Snap Pole Changer Complete. See specifications above.....	
C	Pole Changer Contact Complete. For details see Plate S1007 Fig. B.....	

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A

Circuit Controller and Parts

For Base-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
D	Counter Complete as shown, for three position signals. (1-40, 1-41, 1-42, 4-43, 2-44)	
D1	Counter Complete, for two position signals. (1-40, 1-42, 2-43, 1-44)	
1	Frame, left hand, with bushing Fig. 3	
2	Frame, right hand, with bushing Fig. 3	
3	Bushing, for frames Figs. 1 and 2 and latches Figs. 27 and 29	36395
4	Contact Block	42306
5	Screw, No. 10 x $\frac{5}{8}$″ rd. hd., for fastening contact block Fig. 4 to frames Figs. 1 or 2	2784
6	Shaft	36459
6a	as above, except with one woodruff key Fig. 7 and one $\frac{1}{8}$″ x $\frac{3}{4}$″ cotter pin	
7	Woodruff Key, for fastening trippers Figs. 28 and 30 to shaft Fig. 6	027
8	Pin, for connecting shaft Fig. 6 to main shaft	42146
9	Drag Commutator, two way	36399
10	Drag Commutator, three way	30888
11	Drag Commutator, four way	30823
12	Drag Commutator, five way	29972
13	Set Screw, No. 10 x $1\frac{15}{16}$″, headless, for fastening drag commutators to shaft Fig. 6	42147
14	Snap Commutator, one way, includes plate, bushings, screws, nuts and washers	36394
	Note: One way snap commutator is furnished with screw, nut and washer in place of screw as shown for fastening plate to commutator.	
15	Snap Commutator, two way, includes plate, bushings and screws	36393
16	Snap Commutator, three way, includes plate, bushings and screws	36398
17	Connector, for binding posts	35377

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A

Circuit Controller and Parts

For Base-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
18	Contact, state the positions of signal arm at which contact is to make and break	
19	Contact Spring, dimension X = $2\frac{5}{8}''$	29966
20	Contact Spring, dimension X = $2\frac{3}{4}''$	30829
21	Adjuster, for contact springs Figs. 19 and 20	29967
22	Binding Post, with nuts and washers. (1-22a, 3-22b, 2-22c)	
22a	Screw, sq. hd., for binding post Fig. 22	48565
22b	Nut, hex., for binding post Fig. 22	42839
22c	Washer, for binding post Fig. 22	1225
23	Knob, with screw and nuts, for latch arms Figs. 32 to 39 inclusive. (1-23a, 1-23b, 1-23c, 1-23d)	
23a	Knob only, for Fig. 23	29969
23b	Screw, rd. hd., for knob Fig. 23	50636
23c	Nut, hex., for screw Fig. 23b	48569
23d	Nut, square, for screw Fig. 23b	48570
24	Stud, for holding latch arms Figs. 32 to 39 inclusive to frames Figs. 1 or 2	
25	Wood Screw, No. 6 x $\frac{1}{2}''$, flat head, for fastening contact Fig. 18 to commutators	30127
26	Cap Screw, $\frac{1}{2}''$ x $1\frac{1}{4}''$ hex. hd., for fastening frames Figs. 1 and 2 to mechanism frame	5255
27	Latch, used with tripper Fig. 28	29853
28	Tripper, keyway not cut, used with latch Fig. 27	
29	Latch, used with tripper Fig. 30	30512
30	Tripper, keyway not cut, used with latch Fig. 29	
31	Spring, for latches Figs. 27 and 29	38187
32	Latch Arm, 2 position, snaps at 60°	29854
33	Latch Arm, 2 position, snaps at 45°	32732
34	Latch Arm, 2 position, snaps at 90°	30510
35	Latch Arm, 3 position, snaps at 45° and 90°	29851
36	Latch Arm, 2 position, latches at 60° and snaps at 75° to 90°	37990

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A

Circuit Controller and Parts

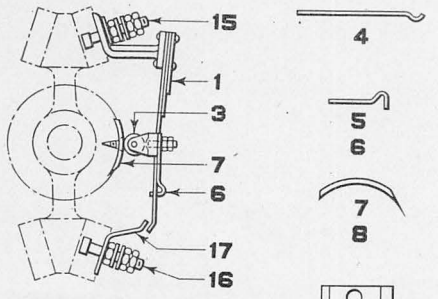
For Base-of-Mast Signal Mechanism

Drawing references are shown for convenience in checking shipping lists and invoices.

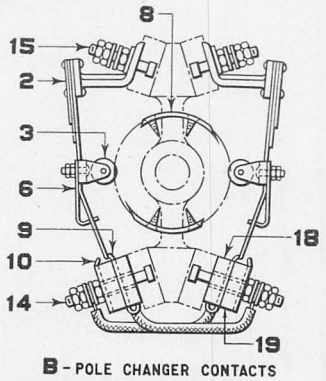
Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
37	Latch Arm, 2 position, snaps at 75°	29996
38	Latch Arm, 3 position, snaps at 37½° and 75°	30839
39	Latch Arm, 2 position, latches at 45° and snaps at 55° to 60°	38455
40	Clamp Arm, includes screw and nuts, for counters. (1-40a, 1-40b, 2-40c 2-40d)	
40a	Clamp Arm only, for Fig. 40	30874
40b	Screw, No. 10 x 1¼″ rd. hd., for clamp arm Fig. 40	7634
40c	Nut, No. 10 hex., for screw Fig. 40b	577
40d	Screw, No. 6 x ⅜″ rd. hd., for holding operating rod Fig. 44 to clamp arm Fig. 40	2552
41	Counter, left hand	20567
42	Counter, right hand	26674
43	Screw, No. 4 x ⅜″ rd. hd., for fastening counters Figs. 41 and 42 to frames Figs. 1 and 2	29107
44	Operating Rod, for counters Figs, 41 and 42	34666–1

Memoranda

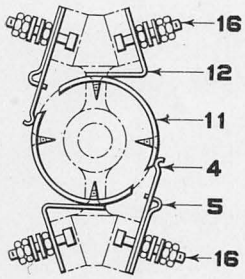
PLATE S1007



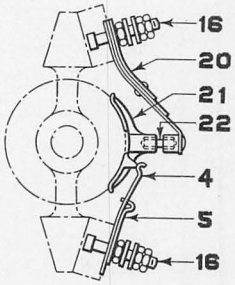
A - OPERATING CONTACT RELAY TYPE



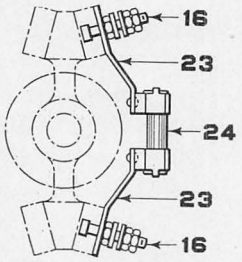
B - POLE CHANGER CONTACTS RELAY TYPE



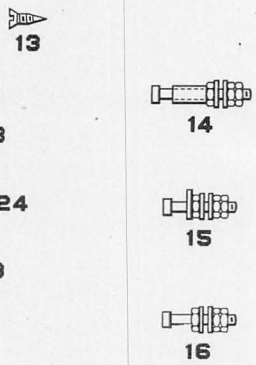
C - POLE CHANGER CONTACTS



D - SLIP CONTACT



E - FUSE



Model 2A Circuit Controller Parts

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Model 2A Circuit Controller

Operating Contacts, Pole Changer Contacts, Etc.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Operating Contact Complete as shown, relay type. Specify position of signal arm at which contact is to make and break. (1-1, 1-7, 1-13, 1-15, 1-16, 1-17)	35320
B	Pole Changer Contacts Complete as shown, relay type. Specify position of signal arm at which polarity is to be changed. (2-2, 2-8, 2-9, 2-10, 4-13a, 2-14, 2-15, 2-18, 2-19)	
C	Pole Changer Contacts Complete as shown. (2-4, 2-5, 2-11, 2-12, 4-13b, 4-16)	
D	Slip Contact Complete as shown. (1-4, 1-5, 2-16, 1-20, 1-21, 1-22)	35170
E	Fuse Complete as shown, 3 amperes. (2-16, 2-23, 1-24)	
1	Contract Arm Complete, includes contact spring, adjuster and roller, for operating contact Fig. A	35321
2	Contact Arm Complete, includes contact spring, adjuster and roller, for pole changer contacts Fig. B	38461
3	Roller Complete, includes support, stud and nuts, for Figs. A and B. (1-3a, 2-3b)	
3a	as above, except without nuts	42470
3b	Nut, No. 8 hex., for roller complete Fig. 3	9188
4	Contact Spring, for Figs. C and D	30829
5	Adjuster, for contact spring Fig. 4	29967
6	Adjuster, for contact arms Figs. 1 and 2	35332
7	Tripper, for operating contact Fig. A. Specify positions of signal arms at which contact is to make and break	
8	Tripper, for pole changer contacts Fig. B	38468
8a	as above, except with two screws Fig. 13a	
9	Front Contact, for pole changer contacts Fig. B	38464
10	Back Contact, for pole changer contacts Fig. B	38466
11	Contact Piece, for pole changer contacts Fig. C	37919
11a	as above, except with two screws Fig. 13b	
12	Contact Spring, for pole changer contacts Fig. C	37918

GENERAL RAILWAY SIGNAL COMPANY June 1917

Model 2A Circuit Controller

Operating Contacts, Pole Changer Contacts, Etc.

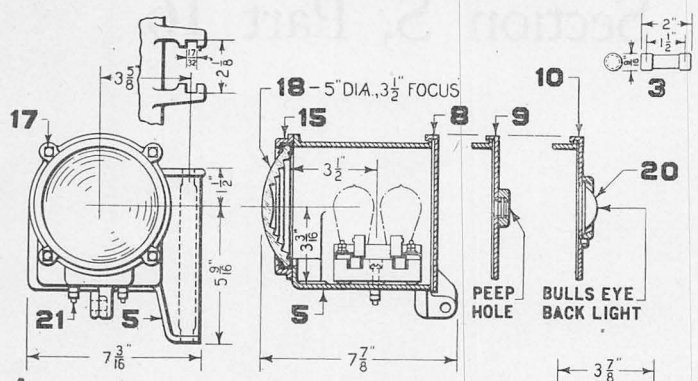
Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Reference
	Order by plate, figure number and name	
13	Wood Screw, No. 7 x ½″ flat hd., for fastening Tripper Fig. 7 to commutator	0859
13a	Wood Screw, No. 6 x ½″ flat hd., for fastening Tripper Fig. 8 to commutator	44734
13b	Wood Screw, No. 6 x ½″ flat hd., for fastening contact Fig. 11 to commutator	30127
14	Binding Post Complete, for Fig. B, includes screw, bushing, nuts and washers. (1-14a, 1-14b, 3-15b, 2-15c)	
14a	Screw, sq. hd., for Fig. 14	45709
14b	Insulating Bushing, for Fig. 14	38471
15	Binding Post Complete, for Figs. A and B, includes screw, nuts and washers. (1-15a, 3-15b, 2-15c, 1-15d)	
15a	Screw, sq. hd., for Figs. 15 and 16	48565
15b	Nut, hex., for Figs. 14, 15 and 16	42839
15c	Washer, for Figs. 14, 15 and 16	1225
15d	Lock Washer, for Fig. 15	43083
16	Binding Post Complete, for Figs. A, C, D and E, includes screw, nuts and washers. (1-15a, 3-15b, 2-15c)	
17	Contact Spring, for operating contact Fig. A	35322
18	Insulating Block, for pole changer contacts Fig. B	38470
19	Insulating Block, for pole changer contacts Fig. B	38469
20	Spring, for contact Fig. 21	35171
21	Contact, for slip contact Fig. D	35172
22	Pin, for contact Fig. 21	35178
23	Support, for fuse Fig. 24, includes fuse clip and rivet	30834
24	Fuse, 3 amperes, for Fig. E	0839

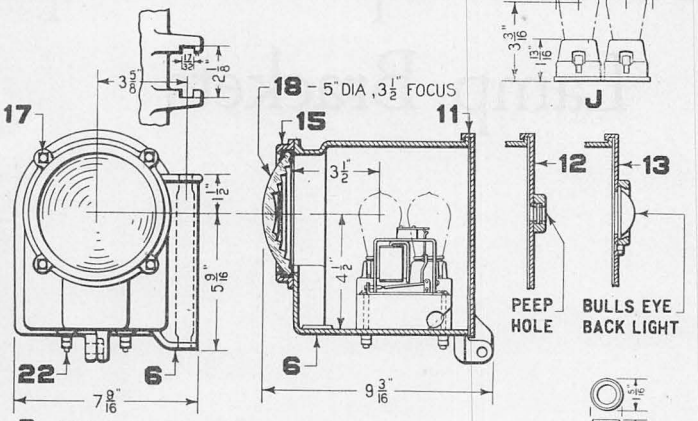
Section S, Part 16

Electric Semaphore Lamps
Lamp Brackets

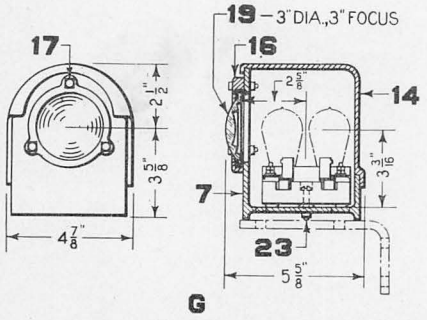
PLATE S1601



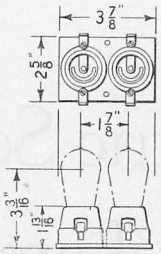
A – WITHOUT PEEP HOLE OR BULLS EYE BACK LIGHT
B – WITH PEEP HOLE
C – WITH BULLS EYE BACK LIGHT

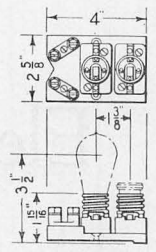


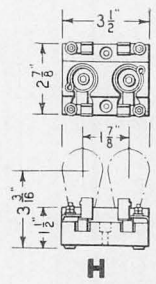
D – WITHOUT PEEP HOLE OR BULLS EYE BACK LIGHT
E – WITH PEEP HOLE
F – WITH BULLS EYE BACK LIGHT

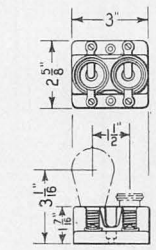


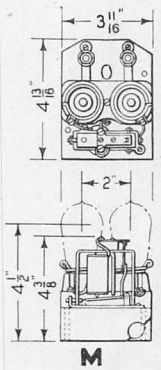
G











Electric Semaphore Lamps

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Electric Semaphore Lamps

Note: Electric Semaphore Lamps as listed below do not include electric light bulbs or fuses which must be ordered separately when desired. If bulb other than those listed is desired, specify voltage, wattage and candle power. Unless otherwise specified, lamps will be furnished with clear lenses.

It is recommended that lamp voltages be so chosen as to burn normally at from 80% to 90% of their normal rated voltage. The bulbs listed (1, 2 and 4 c. p.) when burned as recommended above, will produce approximately $\frac{1}{2}$, 1 and 2 candle power respectively which is quite sufficient for the purpose and the life of the bulb will be materially increased.

Electric semaphore lamps Figs. A to F inclusive can be used in place of R. S. A. lamps without change of bracket. Lamps Figs. D, E and F are provided with cut-in relays which allow only one bulb to be burned at a time. When this bulb burns out the cut-in relay puts the remaining bulb in service.

Drawing references are shown for convenience in checking shipping lists and invoices,

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Electric Semaphore Lamp Complete as shown (clear lens, 5″ dia., $3\frac{1}{2}$″ focus) includes lamp block Fig. H. Does not include peep hole, bulls eye back light or electric light bulb. Bulb must be ordered separately if desired	
A1	same as Fig. A, except with lamp block Fig. J	
A2	same as Fig. A, except with lamp block Fig. K	
A3	same as Fig. A, except with lamp block Fig. L	
B	Electric Semaphore Lamp Complete with peep hole, (clear lens, 5″ dia , $3\frac{1}{2}$″ focus), includes lamp block Fig. H. Does not include electric light bulb which must be ordered separately if desired	42490
B1	same as Fig. B, except with lamp block Fig. J	
B2	same as Fig. B, except with lamp block Fig. K	47194
B3	same as Fig. B, except with lamp block Fig. L	
C	Electric Semaphore Lamp Complete with bulls eye back light (clear lens, 5″ dia., $3\frac{1}{2}$″ focus), includes lamp block Fig. H. Does not include electric light bulb which must be ordered separately if desired	43430

GENERAL RAILWAY SIGNAL COMPANY June 1917

Electric Semaphore Lamps

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
C1	same as Fig. C, except with lamp block Fig. J	
C2	same as Fig. C, except with lamp block Fig. K	
C3	same as Fig. C, except with lamp block Fig. L	
D	Electric Semaphore Lamp Complete as shown (clear lens, 5″ dia., 3½″ focus). Includes lamp block with cut-in relay Fig. M. Does not include peep hole, bulls eye back light or electric light bulb. Bulb must be ordered separately if desired	
E	same as Fig. D, except with peep hole	50580
F	same as Fig. D, except with bulls eye back light	
G	Electric Semaphore Lamp Complete as shown (clear lens, 3″ dia., 3″ focus), includes lamp block Fig. H. Does not include electric light bulbs which must be ordered separately if desired. Used on dwarf signals as shown on Plate S0603	30845
H	Lamp Block Complete, for lamps Figs. A, B, C, and G, mounts two electric light bulbs and two enclosed fuses Fig. 3. Does not include bulbs or fuses which must be ordered separately if desired	28208
J	Lamp Block Complete, for lamps Figs. A1, B1 and C1, mounts two electric light bulbs. Does not include bulbs which must be ordered separately if desired	32965
K	Lamp Block Complete, for lamps Figs. A2, B2 and C2, mounts one electric light bulb, one plug fuse Fig. 4 and two connectors. Does not include bulb or plug fuse which must be ordered separately if desired	
L	Lamp Block Complete, for lamps Figs. A3, B3 and C3, mounts one electric light bulb and one plug fuse Fig. 4. Does not include bulb or plug fuse which must be ordered separately if desired	40562
M	Lamp Block Complete with cut-in relay, for lamps Figs. D, E and F, mounts two electric light bulbs. Does not include bulbs which must be ordered separately if desired	50581

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Electric Semaphore Lamps

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
1	Electric Light Bulb, tungsten filament, 6 volts, $2\frac{1}{2}$ watts, 2 candle power. Diameter of bulb $1\frac{3}{4}''$, length over all $3\frac{3}{8}''$, length from center of filament to base end $2\frac{9}{32}''$	
1a	same as Fig. 1, except 6 volts, 5 watts, 4 candle power	
1b	same as Fig. 1, except 12 volts, $2\frac{1}{2}$ watts, 2 candle power	
1c	same as Fig. 1, except 12 volts, 5 watts, 4 candle power	
2	Electric Light Bulb, carbon filament, 55 volts, 5 watts, 1 candle power. Diameter of bulb $1\frac{3}{4}''$, length over all $3\frac{3}{8}''$, length from center of filament to base end $2\frac{9}{32}''$	
2a	same as Fig. 2, except 55 volts, 10 watts, 2 candle power	
2b	same as Fig. 2, except 60 volts, 5 watts, 1 candle power	
2c	same as Fig. 2, except 60 volts, 10 watts, 2 candle power	
2d	same as Fig. 2, except 110 volts, 5 watts, 1 candle power	
2e	same as Fig. 2, except 110 volts, 10 watts, 2 candle power	
2f	same as Fig. 2, except 125 volts, 5 watts, 1 candle power	
2g	same as Fig. 2, except 125 volts, 10 watts, 2 candle power	
3	Enclosed Fuse, for use on lamp block Fig. H. See Section N Plate N1403 Figs. A1 to A30 inclusive and specify fuse desired	0839
4	Plug Fuse, for use on lamp blocks Figs. K and L. See Section N Plate N1403 Figs. E3 to E30 inclusive and specify fuse desired	
5	Case, for Figs. A to C3 inclusive	42491
6	Case, for Figs. D, E and F	42491–1
7	Case, for Fig. G	30846
8	Cover, for Figs. A, A1, A2 and A3	
9	Cover, for Figs. B, B1, B2 and B3, includes cap, washers, screws and glass for peep hole	
10	Cover, for Figs. C, C1, C2 and C3, includes ring, screws and lens for bulls eye back light	
11	Cover, for Fig. D	
12	Cover, for Fig. E, includes cap, washers, screws and glass for peep hole	

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Electric Semaphore Lamps

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
13	Cover, for Fig. F, includes ring, screws and lens for bulls eye back light	
14	Cover, for Fig. G	30847
15	Bezel Ring, for lens Fig. 18	31623
16	Bezel Ring, for lens Fig. 19	30848
17	Bolt, $\frac{1}{4}''$ x 1″ sq. hd., with sq. nut for fastening Bezel Rings Figs. 15 and 16 to cases	02
18	Clear Lens, 5″ dia., $3\frac{1}{2}''$ focus, for Figs A to F inclusive	31624
18a	Packing, 16″ long, for lens Fig. 18	
19	Clear Lens, 3″ dia., 3″ focus, for Fig. G	15251
19a	Packing, $9\frac{1}{2}''$ long, for lens Fig. 19	
20	Clear Lens, 2″ dia., for bulls eye back light	43433
21	Screw, No. 10 x $1\frac{1}{4}''$ rd. hd. with two square nuts for fastening lamp block Fig. H to case Fig. 5	
21a	Screw, No. 10 x 1″ rd. hd., with two square nuts, for fastening lamp blocks Figs. J and L to case Fig. 5	
21b	Screw, No. 8 x $\frac{3}{4}''$ flat hd., with hex. nut and lock washer, for fastening lamp block Fig. K to case Fig. 5	
22	Screw, No. 10 x 2″ rd. hd., with two square nuts and washer, for fastening lamp block Fig. M to case Fig. 6	
23	Screw, No. 10 x 1″ rd. hd., with square nut, for fastening lamp block Fig. H to case Fig. 7	

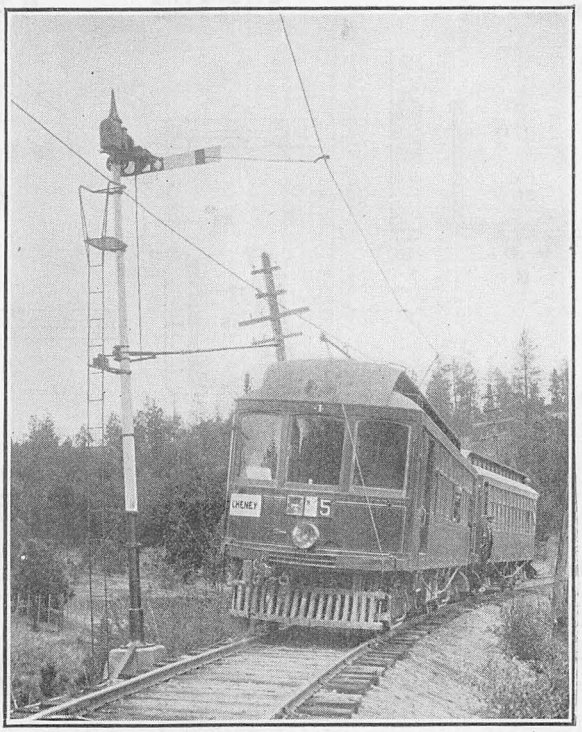
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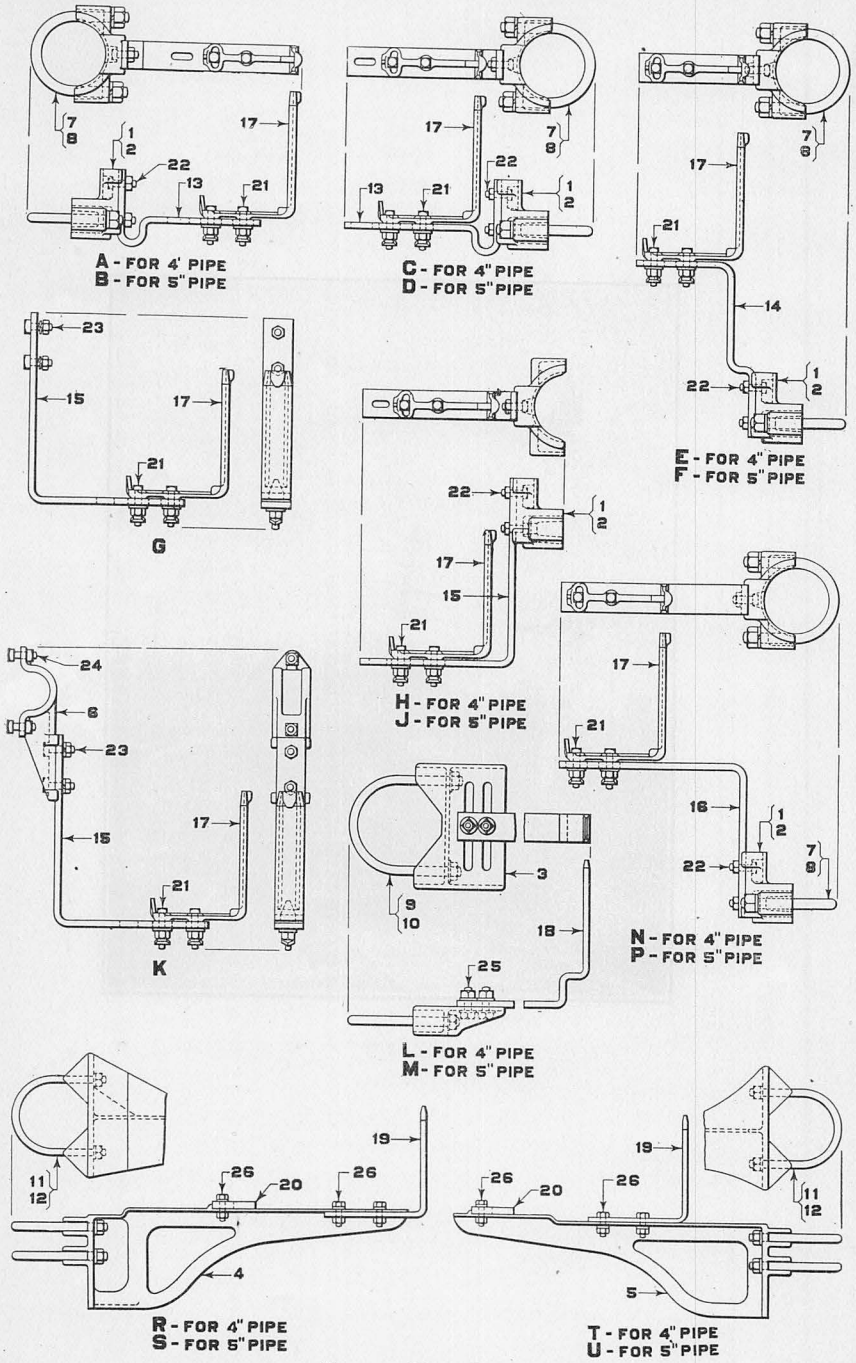
PLATE SI605


A - FOR 4" PIPE
B - FOR 5" PIPE
C - FOR 4" PIPE
D - FOR 5" PIPE
E - FOR 4" PIPE
F - FOR 5" PIPE
G
H - FOR 4" PIPE
J - FOR 5" PIPE
K
L - FOR 4" PIPE
M - FOR 5" PIPE
N - FOR 4" PIPE
P - FOR 5" PIPE
R - FOR 4" PIPE
S - FOR 5" PIPE
T - FOR 4" PIPE
U - FOR 5" PIPE

Lamp Brackets

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Lamp Brackets

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Lamp Bracket Complete as shown, for 4″ pipe. Used with spectacles shown on Plate S1501 Figs. A, A1, A2, A3, B, B1, C, C1, D, D1, J and P, and Plate S1503 Figs. A, A1, A2, A3, B and B1, also used for marker lights. R. S. A. Type. (1-1, 1-7, 1-13, 1-17, 2-21, 2-22)	38221
B	same as Fig. A, except for 5″ pipe. (1-2, 1-8, 1-13, 1-17, 2-21, 2-22)	35651
C	Lamp Bracket Complete as shown, for 4″ pipe. Used for staggered marker lights. R. S. A. Type. (1-1, 1-7, 1-13, 1-17, 2-21, 2-22)	
D	same as Fig. C, except for 5″ pipe. (1-2, 1-8, 1-13, 1-17, 2-21, 2-22)	
E	Lamp Bracket Complete as shown, for 4″ pipe. Used with staggered light spectacles shown on Plate S1501 Figs. E, F, G and H and Plate S1503 Fig. C. R. S. A. Type. (1-1, 1-7, 1-14, 1-17, 2-21, 2-22)	
F	same as Fig. E, except for 5″ pipe. (1-2, 1-8, 1-14, 1-17, 2-21, 2-22)	42478
G	Lamp Bracket Complete as shown. Used with spectacles shown on Plate S1501 Figs. C, C1, D and D1 and R. S. A. bearings shown on Plate S1406 Figs. C, C1, D, D1, E and E1. R. S. A. Std. (1-15, 1-17, 2-21, 2-23)	43679
H	Lamp Bracket Complete as shown, for 4″ pipe. Used with staggered light spectacles shown on Plate S1501 Figs. F and G and R. S. A. bearings shown on Plate S1406 Figs. C and C1. R. S. A. Type. (1-1, 1-15, 1-17, 2-21, 2-22)	
J	same as Fig. H, except for 5″ pipe. Used also with spectacle shown on Plate S1501 Fig. H. R. S. A. Std. (1-2, 1-15, 1-17, 2-21, 2-22)	43740
J1	as above, except without clamp Fig. 2	
K	Lamp Bracket Complete as shown. Used with spectacles shown on Plate S1501 Figs. A, A1, A2, A3, B, B1, C, C1, D, D1 and P, and Plate S1503 Figs. A, A1, A2, A3, B and B1, and bearings shown on Plate S1405. R. S. A. Type. (1-6, 1-15, 1-17, 2-21, 2-23, 2-24)	

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Lamp Brackets

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
L	Lamp Bracket Complete as shown, for 4″ pipe. Used with spectacles shown on Plate S1501 Figs. A, A1, A2, A3, B, B1, C, C1, D, D1, J and P, and Plate S1503 Figs. A, A1, A2, A3, B and B1. (1-3, 1-9, 1-18, 2-25)	
M	same as Fig. L, except for 5″ pipe. (1-3, 1-10, 1-18, 2-25)	
N	Lamp Bracket Complete as shown, for 4″ pipe. Used with spectacles shown on Plate S1503 Figs. D and E. R. S. A. Type. (1-1, 1-7, 1-16, 1-17, 2-21, 2-22)	
P	same as Fig. N, except for 5″ pipe. (1-2, 1-8, 1-16, 1-17, 2-21, 2-22)	
R	Lamp Bracket Complete as shown, for 4″ pipe. Used with spectacles shown on Plate S1501 Figs. K, M and M1. (1-4, 1-11, 1-19, 1-20, 3-26)	
S	same as Fig. R, except for 5″ pipe. (1-4, 1-12, 1-19, 1-20, 3-26)	
T	Lamp Bracket Complete as shown, for 4″ pipe. Used with staggered light spectacle shown on Plate S1501 Fig. N. (1-5, 1-11, 1-19, 1-20, 3-26)	
U	same as Fig. T, except for 5″ pipe. (1-5, 1-12, 1-19, 1-20, 3-26)	
1	Clamp, for 4″ pipe. R. S. A. Type	38222
2	Clamp, for 5″ pipe. R. S. A. Std	35654
3	Clamp Bracket, for lamp brackets complete Figs. L and M	34726
4	Clamp Bracket, for lamp brackets complete Figs. R and S	32972
5	Clamp Bracket, for lamp brackets complete Figs. T and U	44929
6	Adapter, for lamp bracket complete Fig. K	47829
6a	as above, except with two bolts Fig. 24	47828
7	U Bolt Complete, for 4″ pipe, for lamp brackets complete Figs. A, C, E and N. Includes hex. nuts and lock washers	43742
8	U Bolt Complete, for 5″ pipe, for lamp brackets complete Figs. B, D, F and P. Includes hex. nuts and lock washers	43741
9	U Bolt Complete, for 4″ pipe, for lamp bracket complete Fig. L. Includes hex. nuts and washers	

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Lamp Brackets

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
10	U Bolt Complete, for 5″ pipe, for lamp bracket complete Fig. M. Includes hex. nuts and washers	
11	U Bolt Complete, for 4″ pipe, for lamp brackets complete Figs. R and T. Includes hex. nuts and washers	
12	U Bolt Complete, for 5″ pipe, for lamp brackets complete Figs. S and U. Includes hex. nuts and washers	
13	Support, for lamp brackets complete Figs. A, B, C and D	35655
14	Support, for lamp brackets complete Figs. E and F	42479
15	Support, for lamp brackets complete Figs. G, H, J and K. R. S. A. Std.	43745
16	Support, for lamp brackets complete Figs. N and P	
17	Lamp Bracket only. R. S. A. Std.	35656
18	Lamp Bracket only, for Figs. L and M	30560
19	Lamp Bracket only, for Figs. R, S, T and U	32973
20	Clip, for lamp brackets complete Figs. R, S, T and U	32974
21	Bolt, $\frac{1}{2}$″ x 2″ sq. hd. with hex. nut, washer and grip nut, for fastening lamp bracket Fig. 17 to support	
22	Bolt, $\frac{1}{2}$″ x $1\frac{1}{4}$″ sq. hd. with hex. nut, for fastening supports Figs. 13, 14, 15 and 16 to clamps	39147
23	Bolt, $\frac{1}{2}$″ x $1\frac{1}{2}$″ sq. hd. with hex. nut and lock washer, for fastening support Fig. 15 to bearing and also to adapter Fig. 6	
24	Bolt, $\frac{1}{2}$″ x $1\frac{1}{4}$″ sq. hd. with sq. nut, for fastening adapter Fig. 6 to bearing	077
25	Bolt, $\frac{1}{2}$″ x $1\frac{1}{2}$″ sq. hd. with sq. nut and washer, for fastening lamp bracket Fig. 18 to clamp bracket Fig. 3	
26	Bolt, $\frac{3}{8}$″ x $1\frac{1}{4}$″ hex. hd. with hex. nut and washer, for fastening lamp bracket Fig. 19 and clip Fig. 20 to clamp brackets Figs. 4 and 5	

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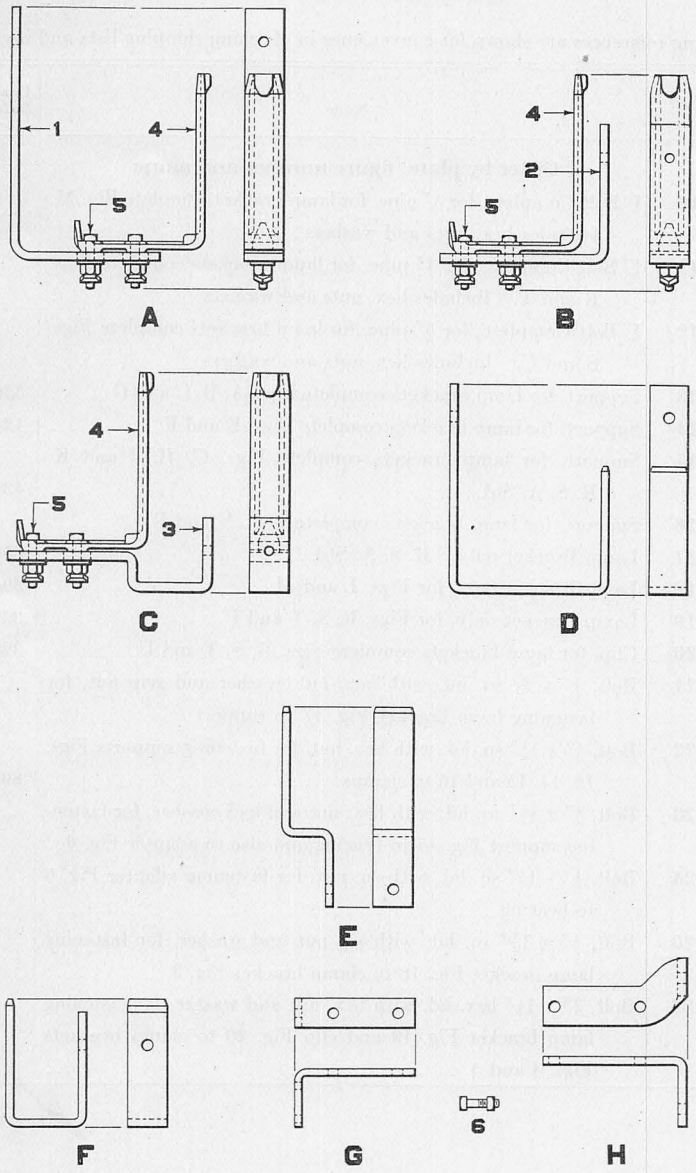

Lamp Brackets

June 1917 GENERAL RAILWAY SIGNAL COMPANY

Lamp Brackets

For Model 2A Dwarf Signals

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Lamp Bracket Complete as shown. Used with spectacles shown on Plate S1512 Figs. A, B, C, D and K. R. S. A. Type. (1-1, 1-4, 2-5)	42035
B	Lamp Bracket Complete as shown. Used with spectacle shown on Plate S1512 Fig. G. R. S. A. Type. (1-2, 1-4, 2-5)	43418
C	Lamp Bracket Complete as shown. Used with spectacles shown on Plate S1512 Figs. J and N. R. S. A. Type. (1-3, 1-4, 2-5)	42078
D	Lamp Bracket, used with spectacles shown on Plate S1512 Figs. A, B, C, D, E and K. Specify spectacle and style of lamp to be used	
E	Lamp Bracket, used with spectacles shown on Plate S1512 Figs. H, J, N and P. Specify spectacle and style of lamp to be used	
F	Lamp Bracket, used with spectacles shown on Plate S1512 Figs. F, G and M. Specify spectacle and style of lamp to be used	
G	Lamp Bracket for electric lamp, used on short-horn dwarf signal with spectacles shown on Plate S1512 Figs. N and P. See Plate S0603 for application	30849
G1	as above, except with two bolts Fig. 6	
H	Lamp Bracket, for electric lamp, used with spectacles shown on Plate S1512 Figs. J and N	46006
1	Support only, for lamp bracket complete Fig. A	42034
2	Support only, for lamp bracket complete Fig. B	43419
3	Support only, for lamp bracket complete Fig. C	42079
4	Lamp Bracket only. R. S. A. Std	35656
5	Bolt, $\frac{1}{2}''$ x 2″ sq. hd. with hex. nut, washer and grip nut, for fastening lamp bracket Fig. 4 to Support	
6	Bolt, $\frac{3}{8}''$ x $1\frac{1}{4}''$ sq. hd. with sq. nut, for fastening electric light to lamp bracket Fig. G	07

Memoranda